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OBSTRUCTIVE LESIONS OF THE DESCENDING COLON AND RECTUM

Chairman's Address

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Since all lesions of the descending colon and rectum may become obstructive, they are of interest not only to the proctologist but to the general surgeon, to the internist and sometimes to the urologist and gynecologist.

The term rectosigmoid has been discarded, because of variations of interpretations of its boundaries. The movable portion above the pelvic peritoneal reflection is designated as sigmoid, and the fixed portion below as the rectum, which in this discussion will also include the anus.

The signs and symptoms of obstructive lesions usually have a mild onset and a gradual increase in severity. As the lesion becomes more and more constricted, the vague abdominal uneasiness progresses to definite discomfort and, later, pain. In some instances the pain may be more intense in the right lower quadrant of the abdomen. Definite changes in bowel movements become more pronounced, until there are real colicky pains and palpable or visible bowel patterns on the abdomen. Acute obstruction, necessitating emergency operative intervention, is sometimes preceded only by mild symptoms, which the patient does not regard as important.

DIAGNOSIS

In malignant lesions of the descending colon the presence of blood and mucus may go unnoticed by the patient. Generally, the blood is dark, and there may be only slight streaks in the stool. The lesions in the lower sigmoid and rectum exhibit the predominant symptom of frequency of evacuation, so often called diarrhea or dysentery and treated as "colitis."

Malignant and inflammatory lesions may go undiagnosed until there is involvement of the bladder, with fistula, and pus and feces in the urine. The urologist frequently makes the diagnosis of a sigmoid lesion by his cystoscopic observations. Perforation of the uterus or vagina, with fecal discharge, has been noted as the first indication of trouble.

Examination of the patient who exhibits signs and symptoms of abnormal bowel functions and the symptoms noted previously should begin at the anus. Palpation of the rectum, with the patient in the lateral position, may be sufficient to establish a diagnosis. The lesion may be malignant with primary involvement of the mucosa, or the lesion may occur secondarily from retrograde implantation of cancer cells from any intra-abdominal organ, causing a perirectal stricture with little or no involvement of the mucosa. This retrograde implantation of tissue is sometimes called the blumer, or rectal, shelf. Perirectal spread of cancer of the prostate presents a similar picture. This is primarily a urologic problem.

Use of the sigmoidoscope will permit a thorough inspection, revealing any mucosal involvement and any constricted areas with intact mucosa. This examination should be made before the patient has an enema or receives a cathartic. An enema may cleanse the lower portion of the bowel of small particles or streaks of dark blood, which may be the most important sign of a lesion beyond the reach of the instrument, as a polyp or cancer. Examination with the patient in the lateral position may reveal a polyp on a long stalk, which use of the Hanes or inverted position might have allowed to fall unseen into the proximal portion of the bowel. When the instrument cannot be passed farther than 5 or 6 inches (12 to 15 cm.), examination should be performed with the patient under intravenous anesthesia, especially when dark blood is a constant observation. The persistent presence of blood, even with the radiologic diagnosis of diverticulosis or diverticulitis, generally signifies a coexistent polyp or malignant lesion. Bleeding is not common in diverticulitis. The absence of blood does not necessarily rule out the presence of a polyp or cancer. Malignant lesions often invade only a small surface of the mucosa, penetrate through the wall and cause a pericolic infiltration resembling an inflammatory process.

Biopsy punch frequently obtains only mucous membrane; examination of this tissue gives a false impression, and a malignant lesion may go undiagnosed for months. Surgical exploration of the abdomen is always indicated when the diagnosis is not clearly determined.

Roentgenologic examination after the patient has had a barium enema is a measure to be requested only after sigmoidoscopic examination, as previously described, has revealed essentially normal conditions. It is well established that the barium enema is not diagnostic below 6 inches (15 cm.), because the opaque material in the lower sigmoid loop often obscures any defect below. The plain barium enema is requested when a stenosing lesion is suspected above the reach of the sigmoidoscope. The diagnostic acumen of the radiologist is extremely valuable. Observation of the type of defect and of the mucosal pattern may help him to make a correct diagnosis. It is the consensus that a stenosing malignant lesion is rather sharply defined, with absence of mucosal pattern, compared to the longer, more fusiform defect of diverticulitis. In endometriosis the mucosal pattern is generally normal. When a polyp is suspected, roentgenologic examination after the double contrast barium enema is an essential diagnostic measure, to be repeated as often as may seem necessary.

Read before the Section on Gastro-Enterology and Proctology at the Ninety-Eighth Annual Session of the American Medical Association, Atlantic City, N. J., June 9, 1949.

TYPES OF LESIONS AND SUGGESTED TREATMENT

The lesions most commonly causing obstruction in the descending colon are listed, with the accepted forms of treatment.

Carcinoma is diagnosed by clinical and roentgenologic observations. The preferred treatment is resection with anastomosis. In those cases in which the rectum has not been well decompressed, and in those cases in which there is a decided difference in the thickness of the bowel wall and the size of the lumen between the proximal and distal segments, some type of exteriorization and resection may be performed.

Inflammatory lesions, as diverticulitis, are second in importance. If palliative treatment is not successful, resection of the diseased portion of the colon is usually performed after diversion of the bowel stream, by proximal colostomy, for a reasonable time.

When there is involvement of the bladder, the uterus or other pelvic structures, whether the lesion is malignant or inflammatory, it is generally preferable to resect the lesion and the involved organs after a preliminary transverse colostomy. In inflammatory lesions alone, as diverticulitis, the lesion may subside after a colostomy to such an extent that a sigmoid vesical fistula may be entirely cured.

When a malignant lesion is situated at the pelvic peritoneal reflection, the question of advisability of resection and anastomosis arises. Some writers have advocated anastomosis as low as the rectal ampulla, but others do not believe it should be performed except when the lesion lies entirely in the abdomen. There are several factors which are worthy of consideration before either point of view is adopted. If there are definite incurable metastases, the surgeon is justified in performing a low anastamosis or other sphincter-preserving procedure. Acute obstruction may be caused by a volvulus and must be treated as an emergency procedure.

Endometriosis may exhibit definite obstruction without presence of blood or pus, and examination after the barium enema usually reveals no change in the mucosal pattern. In definite obstruction, resection with anastomosis is indicated. Removal of the ovaries or defunctionalization by roentgen radiation is a controversial alternative.

Megacolon, or Hirschsprung's disease, may necessitate segmental resection. Treatment by most of the suggested methods has left much to be desired. In many cases the obstruction is caused by a functional abnormality at the junction of the rectum and sigmoid.

Large polyps in the sigmoid may be prolapsed, or invaginated into the rectum and even through the anus, to cause partial or complete obstruction.

Extracolic lesions, as pelvic infections and tumors, often require corrective surgical measures.

Infectious granulomas, as amebic, are rare and may resemble a neoplasm. They are treated medically.

Chronic ulcerative colitis may cause such thickening of the bowel wall as to be obstructive.

In the rectum and anus there are congenital defects, as imperforate anus and malformations of the rectum, which do not belong in this presentation. At the anus, epithelioma or epidermoid cancer and adenocarcinoma from perirectal and perianal glands are occasional causes of obstruction. In the ampulla and upper part of the rectum, annular cancer is the commonest form of obstruction and is diagnosed by palpation and by sigmoidoscopic examination. Preferred treatment is abdominoperineal resection, or colostomy and perineal resection.

Rectal stricture caused by lymphogranuloma venereum occurs most commonly in women and is caused by a fibrosis of the rectal wall and perirectal tissues. The mucosa is usually involved. The positive reaction to the Frei test may be diagnostic. Palliative treatment has not been satisfactory: colostomy is necessary in many cases.

Radiation reaction following treatment of cancer of the cervix causes perirectal fibrosis with mucosal involvement of the anterior wall and, occasionally, rectovaginal fistula. Colostomy may be necessary.

SUMMARY

A brief description of the lesions which cause obstruction of the descending colon and rectum has been presented, with the accepted methods of treatment. An attempt has not been made to discuss in detail the differential diagnosis or all of the suggested surgical procedures.

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TUMORS OF THE BLADDER

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This paper is not presented as a solution to the question of the proper treatment of tumors of the bladder but only an expression of our experience in a series of cases treated by us.

The over-all picture of bladder tumor has changed in the last twenty years as the age incidence has increased. This has possibly resulted in more grade 2 and grade 3 tumors being seen. It has also increased the incidence of deaths from degenerative diseases.

The fact that so many types of treatment have been devised for the control of vesical neoplasms indicates the necessity for continued efforts to determine the best way of handling these tumors.

Surgeons do not hesitate to perform radical extirpation of cancer in other parts of the body; therefore, is it not equally as practicable in this organ? We believe that it is too early to finally evaluate total cystectomy: as yet an insufficient number of cases has been reported to balance the possible five or ten year cures against results with less radical procedures, as subtotal cystectomy, interstitial radiation or transurethral resection. Only by reporting a larger series of cases can the value of total cystectomy be ascertained. Kimbrough [1] states, "It is apparent that cystectomy offers little better expectancy as far as morbidity and mortality are concerned than other procedures." Recent improvement in the method of ureteral transplant may increase the life expectancy of these patients.

In general it is our opinion that the treatment of tumors of the bladder has been too conservative. Earlier surgical intervention, whether total or partial cystectomy, is being reported in an increasing number of cases, with a gradually lowered initial mortality and longer survival periods.

Read before the Section on Urology, at the Ninety-Eighth Annual Session of the American Medical Association, Atlantic City, N. J., June 9, 1949.

1. Kimbrough, J. C.: Personal communication to the authors.
2. Footnote deleted in proof.

We are emphasizing two approaches to the problem. Instead of treating tumors in different portions of the bladder alike, we believe that the operative procedure selected should be evaluated with respect to the location of the tumor and degree of infiltration. Site has an important influence on the curability of tumors. It is generally agreed that those situated in the vault of the bladder can best be arrested by segmental resection unless the tumor is seen early, while it is small and noninvasive, in which case fulguration may be employed. This group unfortunately comprises but a small percentage of tumors of the bladder. It is discouraging to realize that approximately three fourths of bladder neoplasms are located in the most active portions of the bladder, the neck, trigone and posterior wall. This area does not always lend itself well to segmental resection. Many forms of treatment have been proposed, but no particular one has been completely accepted. These include total cystectomy, interstitial radiation and local destruction of the tumor by transurethral resection, fulguration or diathermy.

Dean has shown that roentgen ray therapy will provide only half a lethal dose to cancer cells situated in the bladder. While it has a limited use, we have had some excellent results with high voltage roentgen radiation in conjunction with transurethral resection in cases of radiosensitive tumors. In an instance in which the tumor was so extensive that it completely blocked the bladder neck, after irradiation with 4,000 r it had entirely regressed.

The brilliant results of Barringer, achieved over a twenty-five year period, in which he reports 55 per cent five year cures of tumors of grade 1, 32 per cent of grade 2 and 11 per cent of grade 3, still command our surgical respect. We consider interstitial radiation satisfactory particularly in grade 1 and 2 tumors, and even in many of those of grade 3. It is our practice to irradiate the tumor site two or three weeks after resection. We use 1.5 millicurie radon seed planted 1 cm. apart, the depth depending on the tumor. We have observed less evidence of vesical irritation following interstitial radiation than following pack radiation in which the radium element is used. One patient had complete sloughing of the bladder after the application of radium element through a Foley catheter. It is well to remember the carcinogenic properties of overradiation.

One must make an early decision as to the surgical approach, for, as Priestley [4] observed, the best chance to cure cancer anywhere is the first chance. During the past few years urologists have reported an increasing number of cases in which the transurethral approach was used. The Mayo Clinic utilized it in 72 per cent of their cases. McDonald and Filip,[5] Barnes, Turner and Bergman [6] and Scholl [7] have reported its use. We have employed it in 60 of our 100 cases, and our five year results closely parallel those of Barringer. We believe that it offers a suitable approach to the early, small, noninfiltrating type of neoplasm. As one acquires experience it is possible to successfully resect the larger tumors. In one instance one of us (W. C. S.) resected 453 Gm. of tumor and followed this with interstitial radiation. The patient is living and well after nine years. We have frequently resected 50 Gm. or more and have no hesitancy in performing resection in suitable cases involving the lower half of the posterior wall, trigone or neck of the bladder.

The grading of bladder tumors is of questionable practical significance. The pathologist is at great disadvantage because biopsy specimens are frequently inadequate and not representative of the entire tumor, unless several sections are taken which include the muscularis.

On the basis of histologic characteristics it is not necessary to have more than three grades of tumors of the bladder. The significance of degrees of final stages of dedifferentiation and amount of mitosis is purely academic.

The experienced urologist is in a better position to judge the potentialities of the bladder tumor from a clinical standpoint than is the pathologist from its microscopic appearance. Because of the broad experience with the bladder tumors in the Registry, it has been the custom to grade all the papillary tumors as carcinoma, including the histologically benign papillomas. The inconsistency of this is thoroughly appreciated, but there are a number of instances in which tumors of this type have actually metastasized. If all clinicians realized this possibility they would not be deceived by the diagnosis of simple papilloma. Without a knowledge of the potentialities of this tumor there is the danger that the diagnosis of benign papilloma may be taken too lightly.

Judged by the incidence of metastasis, tumors of the bladder are relatively benign, irrespective of their histologic characteristics. Although the over-all mortality of bladder tumors is about 50 per cent, only about 10 per cent of them actually metastasize. The great majority of patients die of infections of the upper part of the urinary tract. In selecting treatment it is important that the urologist bear this in mind with the same seriousness as he regards elimination of the tumor. Jewett has emphasized the importance for the urologist to know whether a given tumor is infiltrating or not. If this is not evident to him clinically, it can at times be determined by the pathologist. The type of treatment and the extent of operative procedure is dependent on two factors, the site of the tumor and the degree of infiltration.

Dean has reported that of 100 bladder tumors removed by cystectomy, in 58 a greater degree of malignancy was demonstrated than had been reported on the cystoscopic biopsies. This is an argument for early and radical removal.

The necessity of evaluating the degree of infiltration of the bladder wall must be considered in determining the curability of cancer of the bladder. This may be done by combined cystoscopy and bimanual palpation with the patient anesthetized. If the tumor extends through the bladder wall the prognosis is generally bad. Lowsley [8] observed, however, that even in some of these advanced cases, diversion of the urinary stream either to the skin or sigmoid afforded a degree of comfort not experienced by other methods.

Morphologically, over 90 per cent of tumors of the bladder are papillary. This is important, because, although some papillomas are single and readily eradicated, the majority are multiple or show a persistent tendency either to recur or to develop at new sites. These characteristics necessitate extended periodic observation of every patient with tumor of the bladder.

3. Footnote deleted in proof.
4. Priestley, J. T.: Surgical Treatment of Carcinoma of the Bladder, J. A. M. A. **134**: 507 (June 7) 1947.
5. McDonald, H. P.; Filip, A. J., and Williams, D. C.: Endoscopic Treatment of Tumors of the Bladder, J. A. M. A. **134**: 500 (June 7) 1947.
6. Barnes, R. W.:; Turner, C. L., and Bergman, R. T.: Treatment of Bladder Tumors, California M. J. **65**: 1, 1946.
7. Scholl, A. J.: Cancer of the Prostate, California Med. **69**: 1, 1948.
8. Lowsley, O. S., in discusison on McDonald, Filip and Williams.[5]

Even when the tumor is of a low grade papillary type, in at least a third of the patients there will be recurrences or new tumors will develop.

A small percentage of these neoplasms are adenomatous, either benign or malignant. Their genesis is difficult to determine. Undoubtedly some are of embryonal origin. It is also obvious that others arise from metaplasia of the bladder epithelium, which occurs too commonly in inflammatory conditions. This calls attention to the importance of the hyperplastic types of cystitis, particularly cystitis glandularis, in which secreting glands develop as a result of invagination and metaplasia of the surface epithelium. It has been possible to trace actual malignant growth from these glands. We have observed several cases either of follicular or of glandular cystitis with epithelial hyperplasia, which revealed an early tumor. We have previously reported on hyperplastic lesions of the bladder.[9]

These observations have been confirmed by Ewing [10] and Patch [11] in their report on the development of malignancy from glandular cysts. Stoerk [12] was able to trace a definite relationship between cystitis cystica, glandularis and multiple papilloma. Cahen [13] and Stoerk also report instances of carcinoma developing in these inflammatory conditions.

The material for this report is 100 primary consecutive bladder tumors and 5 instances of secondary tumors. Of the latter, 1 was a melanoma from the thyroid producing a rarely observed metastatic lesion similar to that seen in the bladder wall, 2 cases metastasized from the prostate, 1 from the cervix and 1 from the colon. There were no postoperative deaths or perforations of the bladder in this group.

Hematuria was the primary symptom in 95 per cent of the cases, dysuria and frequency were symptoms in 75 per cent. We are constantly amazed at the equanimity with which laymen and even physicians discount such an alarming symptom as hematuria. Hematuria is often painless and intermittent, although it may be the only sign of a malignant lesion; hence, patients are prone to dismiss it and wait until the next attack of bleeding before seeking medical attention. Many persons have had a tumor for a year before treatment has been sought. Even if blood is found only on microscopic examination, a cystoscopic examination should be performed immediately to determine the source of the bleeding. In only 12.5 per cent of 658 Registry cases was the tumor less than 2 cm. in diameter.

Our cases show the usual proportion between the sexes, approximately 3 males to 1 female, and the commonest age incidence beginning in the sixth decade.

TABLE 1.—*Location of Tumor in the Bladder with Corresponding Pathologic Diagnosis*

Location in Bladder	Total	Pathologic Diagnosis: Papillary Carcinoma	Pathologic Diagnosis: Primary Infiltrating Carcinoma
Trigone	41	38	3
Lateral wall	21	20	1
Posterior wall	11	10	1
Vault	17	15	2
Entire bladder	4	3	1
Trigone and lateral wall	5	4	1
Trigone and posterior wall	1	0	1
Total	100	90	10

TABLE 2.—*Type of Treatment of Papillary Carcinoma (All Grades) of Bladder by Location of Tumor and Last Known Status of Patient*

		Type of Treatment and Last Known Status																					
		Last Known Status			Transurethral Resection			Fulguration			Suprapubic Resection			Radium or Radon Implant		Resection and X-Ray		Resection and Fulguration			Resection Plus Radon or Radium Implant	
Location of Tumor	Total	L	D	NS	L	D	NS	L	D	NS	L	D	NS	L	D	D	NS	L	D	NS	L	NS
Trigone	38	28	7	3	12	5	0	11	0	1	1	0	1	0	1	0	0	4	1	1	0	0
Lateral wall	20	9	9	2	5	5	1	0	1	0	0	1	0	0	0	0	1	3	2	0	1	0
Posterior wall	10	8	2	0	5	1	0	1	0	0	0	0	0	0	0	0	0	2	1	0	0	0
Vault	15	7	6	2	3	2	1	2	2	0	1	1	0	1	0	0	0	0	1	0	0	1
Entire bladder	2	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
Trigone and lateral wall	4	2	2	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Total	89*	55	27	7	26	14	2	15	3	1	3	2	1	1	1	1	1	9	6	1	1	1

Note: L indicates living; D, dead, and NS, not stated.

* One patient (case 34) with extensive tumor located in the entire bladder was treated by external roentgen ray. Condition improved. Case not included in this table. Total number of papillary carcinoma patients—90.

TABLE 3.—*Duration from Operation to Last Known Status of Patient*

Duration from Operation	Total	Last Known Status: Living Since Operation	Last Known Status: Dead	Last Known Status: Not Stated
Less than 1 mo.	2	1	1	..
1 to 12 mo.	21	10	11	..
1 to 5 yr.	31	25	6	..
6 to 10 yr.	13	9	4	..
10 yr. plus	16	16	0	..
Not stated	17	0	9	8
Total	100	61	31	8

Table 1 emphasizes the discouraging predilection of bladder tumors to select the vitally important parts of the bladder for their origin. Roughly, 75 per cent of them involve the trigone and the immediately adjacent lateral and posterior portions of the wall.

Table 2 illustrates the efficacy of transurethral resection, irrespective of grade. In appropriate tumors transurethral fulguration alone is adequate. So far, we have not performed a sufficient number of total cystectomies to enable us personally to evaluate this procedure which has become so popular in the last few

9. Stirling, W. C., and Ash, J. E.: Chronic Proliferative Lesions of the Urinary Tract, J. Urol. **45**: 342, 1939.
10. Ewing, J.: Neoplastic Diseases, Philadelphia, W. B. Saunders Company, 1940, p. 943.
11. Patch, F. S., and Rhea, L. J.: Genesis and Development of Brunn's Nests and Their Relation to Cystitis Cystica, Cystitis Glandularis and Primary Adeno-Carcinoma of Bladder, Canad. M. A. J. **33**: 597, 1935
12. Stoerk, O.: Beitr. z. path. Anat. Zurich **26**: 367, 1899.
13. Cahen, F.: Zur Casuistik der Blasentumoren, Arch. f. Path. Anat. **113**: 468, 1888.

years, particularly since the availability of effective antibiotics.

Fifteen of our patients had associated hypertrophy of the prostate, in 4 instances malignant. Tumor of the bladder has often been revealed after transurethral resection of the hypertrophied median lobe of the prostate.

CONCLUSION

Neoplasms of the bladder behave differently than do malignant tumors of other regions, where death is caused by tumor. A bladder tumor may persist until death, but death due to the tumor is relatively unusual. It is a killer incidentally, through the circumstances of its anatomic location, particularly the common site that makes involvement of one or both ureters inevitable. This raises the question of the importance of early diversion of the ureteral flow.

The importance of basing treatment on the site of the tumor and the degree of infiltration rather than simply on the removal of obvious tumor is stressed. Transurethral resection with interstitial radiation is commonly possible even with these precautions in mind.

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PAPILLOMA OF THE BLADDER

Life After Fulguration

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This paper is based on a study of 100 unselected cases in which a diagnosis of benign papilloma of the urinary bladder was made at the time of the first cystoscopic examination. In all cases studied, a minimum of five years had elapsed since the first fulguration. We have included cases with an original diagnosis of benign papilloma in which carcinoma of the bladder developed in less than five years. Cases were also included in which the diagnosis of benign papilloma was made, but, because of some doubt, repeated cystoscopic examinations and further microscopic studies were made and they showed carcinoma.

The objectives of this study were to determine the accuracy of the original cystoscopic diagnosis, and the duration of life after the initial diagnosis and fulguration.

There are great differences of opinion whether papillomas of the bladder are to be considered as benign, malignant or potentially malignant tumors. Cabot,[1] Graves,[2] Hinman[3] and Rokitansky[4] are among those who believe that all papillomas of the bladder are malignant or potentially malignant tumors. There are others (Ash,[5] Beer[6] and Buerger[7]) who believe that there exists an essentially benign type of papilloma.

From the A. D. Thompson Fund and the Presbyterian Hospital.
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1. Cabot, H.: Modern Urology, Philadelphia, Lea & Febiger, 1924, vol. 1, p. 200.
2. Graves, R. C.: Tumors of Urinary Bladder, J. Urol. 42: 396, 1939.
3. Hinman, F.: Principles and Practice of Urology, Philadelphia, W. B. Saunders Company, 1935.
4. Rokitansky, C. F.: Ueber den Gallertkrebs mit Himblick auf die gutartigen Gallertgeschwülste, Sitzungsb. d. k. Akad. d. Wissensch Math.-Naturw. Cl., Wien, 1852, vol. 9, pp. 350-385.
5. Ash, J. E.: Epithelial Tumors of the Bladder, J. Urol. 44: 135-145, 1940.
6. Beer, E.: Tumors of the Bladder, Baltimore, William Wood & Company, 1935.
7. Buerger, L.: Tumors of the Bladder, Surg., Gynec & Obst. 21: 179-198, 1915.

Whether or not one is justified in calling all bladder papillomas malignant or potentially malignant is of great importance to the patient, since the patient's entire future depends on this point of view. The patient may contemplate the purchase of new or additional life insurance. Should he be accepted, rejected or "rated up" because he has a papilloma of the bladder, which his physician may consider potentially malignant? The executive who plans to expand his business may hesitate to do so, or stop future contracts, or perhaps retire because he has been told that his papilloma of the bladder is a potentially malignant tumor.

TABLE 1.—*Age of Onset of Papilloma*

Age, Yr.	No. of Cases
1 to 10	0
10 to 20	1
21 to 30	1
31 to 40	14
41 to 50	20
51 to 60	32
61 to 70	21
71 to 80	10
Not Stated	1
Total	100

How potentially malignant is the so-called benign papilloma with our present method of fulguration treatment? To answer this question, we attempted to determine the life expectancy after fulguration, in patients in whom a diagnosis of benign bladder papilloma was made.

AGE OF ONSET

The age of onset of papilloma of the bladder is variable (table 1). The largest number of cases occurred in the sixth decade. The youngest patient was 20 years of age, and the oldest was 76.

SEX

It is generally believed that bladder tumors occur more frequently in males. This has been our experience. In this series there were 81 males and 19 females, a ratio of 4 to 1. The same ratio was found by Beer[6] in his studies.

TABLE 2.—*Location of Papillomas of the Bladder*

Location	Per Cent
Right ureteral orifice	20
Left ureteral orifice	20
Dome	10
Right lateral wall	10
Left lateral wall	16
Posterior wall	1
Base and trigone	11
Posterior urethra	2
Bladder outlet (internal sphincter)	10
Total	100

OCCUPATION

The occupation of the patient, as far as we could determine, played no role in this series of cases. It is well known that some occupations predispose to papilloma of the bladder; for example, aniline dye work. Common synthetic materials of diversified types have been and are being studied for their carcinogenic

properties. Recently, Edwin Davis [8] raised the question whether cosmetics, in widespread use at present, might be a possible carcinogenic factor.

URINE CULTURES

In the early cases of papilloma of the bladder routine urine cultures were not made. However, cultures were made in 68 of the 100 cases. Only 20 cultures were positive. Escherichia coli was the most predominant organism.

BIOPSY SPECIMENS

In many of the early cases biopsy specimens were not taken because this was not a routine procedure as it is today. Furthermore, many of the tumors were immediately treated by fulguration at the time of the first cystoscopic examination.

Biopsy specimens may be misleading. It is well known that the specimen removed from the top of the tumor may be reported as nonmalignant although malignant degeneration may be present at the base. Or there may be malignant changes at the top of the tumor and the stalk may be free. This has led many pathologists to be overly cautious and to call all papillomas malignant—which, of course, is a great injustice to the patient.

Table 3.—*Patients in Whom Cancer of the Bladder Developed*

Sex	Age of Onset	Number of Tumors	Duration of Benign State, Years	Present Status
M	56	2	10	Dead; lived 12 years
M	45	3	10	Dead; lived 14 years
M	39	2	9 to 10	Dead; lived 13 years
M	55	2	2	Dead; lived 12 years
M	68	2	4	Dead; coronary
F	63	3	5	Living; recurring papillary carcinoma
M	62	Many	18	Living; segmental resection
M	47	2	4	Living; recurrent creeping papillary carcinoma
M	61	2	12	Living; sections of tissue in 1948 showed carcinoma
M	54	6	5	Living; recurring small multiple tumors

Because of the many conflicting reports received from the pathologists, many urologists rely on cystoscopic studies to determine whether the tumor is benign or malignant.

SYMPTOMS

In the largest number of cases (87 per cent) hematuria was the presenting symptom. As a rule, it is a painless and symptomless hematuria. The hematuria may be present during only one or two urinations, or it may be present with each urination for several days or a week. The time that elapsed between the initial hematuria and the cystoscopic examination varied. In some instances the patient was seen on the first or second day of hematuria. Unfortunately, this is uncommon, and many patients have several attacks of hematuria before they seek relief. In 1 instance the interval between the initial hematuria and the cystoscopic examination was seventeen years.

In some cases the papillomas were found when routine cystoscopic examinations were made for one reason or another (in several instances because red blood cells were found in the urine on repeated microscopic examinations). In the remainder of the cases the patients complained of frequency of urination, dysuria or burning.

Table 4.—*Treatment by Fulguration in Patients with Papilloma*

No. of Patients	No. of Fulgurations
55	1
16	2
10	3
7	4
1	5
4	6
2	7
2	8
1	9
1	10
1	14

INTRAVENOUS UROGRAPHY

Intravenous urography is now a routine procedure in every urologic case. Many of the cases included in this study preceded the advent of intravenous urography, and hence intravenous urograms were not made. In every patient in whom recurrent papillomas are found in the region of one or the other ureteral orifice, intravenous or retrograde pyelograms must be made. In this series of cases no papillomas of the renal pelvis or the ureter were found.

LOCATION OF PAPILLOMAS

Papillomas may occur in any part of the bladder. As is well known, they occur with greatest frequency in the region of the ureteral orifices and trigone. They are listed in table 2.

NUMBER OF TUMORS

The initial cystoscopic examination revealed a single tumor in 45 per cent of the patients and multiple tumors in 55 per cent. It is interesting that it was in the multiple tumor group that carcinoma developed.

Table 5.—*Duration of Life after Fulguration*

No. of Patients	No. of Years Living Since First Fulguration
9	5 to 10
14	11 to 15
15	16 to 20
10	21 to 25
5	26 to 28
53 Average	16.4

INCIDENCE OF CARCINOMA

The initial cystoscopic diagnosis of benign papilloma was wrong in 3 cases (3 per cent). Subsequent examinations revealed a malignant tumor. It is possible that the tumors were benign and underwent rapid change. However, the initial cystoscopic report mentioned small areas of necrosis and large vessels running into the base of the tumor, indicating at least the beginning of

8. Davis, E.: Chemical Carcinogenic Drugs, Dyes, Remedies and Cosmetics, with Particular Reference to Bladder Tumors, Tr. Am. A. Genito-Urin. Surgeons, 1941-1942, pp. 34-35.

malignant growth. Because the patients were discharged with the diagnosis of benign papilloma, they are included in this study.

In 10 patients (10 per cent) carcinoma of the bladder eventually developed, confirmed by cystoscopic and microscopic examination. These malignant tumors developed within a period of two to eighteen years,

TABLE 6.—*Duration of Life of Patients Who Died*

No. of Patients	Duration of Life, Yr.
14	5 to 10
9	11 to 15
8	16 to 20
3	21 to 25
34 Average	12.7

and in an average of eight years. In 5 cases the patients died of cancer of the bladder. These cases are listed in table 3.

METHOD OF TREATMENT

Ninety-five of the 100 patients with papilloma were treated transurethrally either with the Bugbee electrode through the cystoscope or by resection of the tumor with fulguration of the base with the resectoscope.

The remaining 5 patients had a suprapubic cystostomy and surgical diathermy, because the large size of the tumors made treatment with the Bugbee electrode impossible. At the present time they would be treated with the resectoscope. Since the introduction of the resectoscope, it is no longer necessary to resort to suprapubic cystostomy because all these papillomas can be treated with the resectoscope irrespective of the size of the growth.

Two of the patients who were treated transurethrally some years ago had segmental resections elsewhere for recurrent tumors.

NUMBER OF TREATMENTS

Only one treatment was required in 37 of the 45 patients with only one tumor. In 8 patients new papillomas developed; hence, additional fulgurations

TABLE 7.—*Cause of Death in the Group of Patients Who Have Died*

Cardiac	11
Cerebral vascular accident	10
Pneumonia	5
Carcinoma of cecum	1
Carcinoma of liver	1
Carcinoma of gallbladder	1
Carcinoma of esophagus	1
Carcinoma of colon	1
Pulmonary embolism	1
Nephritis	1
Paralysis agitans	1
Total	34

were required. The number varied between two and three treatments.

In the remaining 55 patients who had multiple tumors, only 17 required one treatment. The remaining 38 required more than one treatment because of recurring papillomas. The number of fulgurations varied from two to fourteen. In 7 patients who required more than seven fulgurations for recurrent growths there eventually developed malignant tumors. The one exception is a patient who still has benign papilloma after the tenth fulguration.

The number of fulgurations are shown in table 4.

DURATION OF LIFE AFTER FULGURATION

Fifty-three of the patients are alive and well. The duration of life after the initial fulguration varies from 5 to 28 years. The average duration of life in this group is 16.4 years. These data are summarized in table 5.

ANALYSIS OF THE CAUSES OF DEATH

Thirty-four of the patients died. The average duration of life after the initial fulguration was 12.7 years. This is shown in table 6.

Five patients lived from twenty-six to twenty-eight years. One patient died at 96 years of age of a cerebral vascular accident, twenty-two years after his one and only fulguration, without any recurrence of his papilloma of the bladder. Aside from 1 patient whose death was attributed to nephritis, none of the deaths were

TABLE 8.—*Types of Tumors and Sites of Formation in Patients Previously Treated for Papilloma*

Carcinoma of colon	1
Carcinoma of colon, papillary	1
Carcinoma of esophagus	1
Carcinoma of cecum	2
Carcinoma of liver	1
Carcinoma of gallbladder	1
Tumor of ovary	1
Tumor of uterus	1
Carcinoma of prostate	1
Papilloma of vocal cords	1

due to genitourinary disease. The causes of these deaths are of interest, since they have no relationship to the patients' papillomas (table 7).

OCCURRENCE OF TUMORS OUTSIDE THE GENITOURINARY TRACT

The incidence of tumor growths in other organs after the patient was treated for the papilloma of the bladder may signify a "tumor prone" type of person, as primary tumors developed in 12.67 per cent of the patients in other organs after the onset of their bladder tumors. The various tumors and sites of formation are shown in table 8.

SUMMARY AND CONCLUSIONS

1. Not all papillomas of the bladder are necessarily malignant.

2. Great care must be exercised in designation of tumors by the terms malignant or potentially malignant.

3. The importance of caution in the prognosis is self evident.

4. The duration of life after the initial fulguration of those still living was 16.4 years.

5. The duration of life after the initial fulguration of those who died was 12.7 years.

6. In the patients who died there was no relationship between the cause of death and the papilloma.

7. Carcinoma developed in only 10 per cent of the entire group of patients.

CANCER OF THE FEMALE URINARY BLADDER

J. SYDNEY RITTER, M.D.
and
LEO A. SHIFRIN, M.D.
New York

In recent years educational propaganda of the dreaded cancer in the lay press, television and radio not only has aroused the general public, but also has activated most of the members of the medical profession. Cancer has become the watchword, and the physician has learned to talk in terms of this life-destroying disease. Since a direct relationship exists between early diagnosis and favorable therapeutic results, the present worldwide effort to familiarize all with the early signs and symptoms of this disease is highly commendable.

DIAGNOSTIC CONSIDERATIONS

Tumor of the bladder is a most distressing urologic problem. The disease, although at times histologically benign, must ever be considered potentially malignant. These growths, when located at a ureteral orifice, lead to obstruction of urinary drainage with subsequent damming back of urine and destruction of the renal parenchyma. Whether the tumor is single, involving one ureteral orifice, or multiple, involving both ureteral orifices, death could result because of mechanical obstruction. The tumor may be located at the vesical outlet, causing obstruction to urination, urinary retention with damming back, arrest of urinary outflow from the ureters, with resulting hydroureters, hydronephroses and renal destruction. Here again death may follow not because of the malignant nature of the disease but because of the location of the tumor. In other words, a growth may remain native to the bladder and may be histologically benign but still cause death by mechanical interference with drainage.

The malignant tumor, or cancer, of the bladder is limited to this organ for a protracted length of time and is amenable to treatment. At the first sign of hematuria, either microscopic or macroscopic, extensive urologic investigation should be demanded. It is unfortunate that female patients are frequently unable to ascertain the source of the bleeding, often misinterpreting it as being an abnormal menses. They therefore postpone their visit to the physician and wait until other appearances of blood panic them. Some patients whom we encountered waited as long as a year after the initial hematuria before seeking medical advice. Recently we examined 1 woman who had waited four years after appearance of her initial symptom before reporting for a check-up.

Again, after the physician has been consulted, only too often he will keep the patient under so-called observation until bleeding reappears. At the time of the patient's visit to the physician there may not be any demonstrable macroscopic or microscopic blood. The physician, believing that the patient has been unduly alarmed, waits for future developments. Unfortunately, bleeding may not appear again until too late for curative treatment.

With this in mind, we wish to stress the importance of immediate, complete urologic investigation in all cases of hematuria or suspected hematuria. This will avoid delays in treatment.

From the Joseph F. McCarthy Urologic Clinic, New York Polyclinic Hospital.

Read before the Section on Urology at the Ninety-Eighth Annual Session of the American Medical Association, Atlantic City, N. J., June 9, 1949.

Dysuria and urinary frequency are also two important symptoms that may appear early in tumors of the bladder, when the growth is located on or near the trigone. These symptoms should not be permitted to continue without complete urologic survey. Early diagnosis leads to complete cure in many of these cases, hence the insistence on early investigation.

The pan-endoscope introduced by Dr. Joseph F. McCarthy about twenty years ago permitted excellent exposure of the bladder and particularly of the urethra and internal sphincter. Urologists are further indebted to him for bringing to light the blind spots in the bladder with the new forward and retrograde diagnostic pan-endoscope. This instrument is an invaluable aid, and no one today should practice urology without adding it to his armamentarium. Dr. McCarthy received the Francis Amory Award a few years ago for his ingenious methods employed in the relief of prostatism. We now recommend him for a second award for this outstanding contribution to urologic practice.

UROLOGIC SURVEY

The urologic survey to be carried out in the female is the same as in the male. First, a sterile specimen of urine is obtained from the bladder. Clots or fragments of tissue found in this urine are sent to the laboratory for study, with the idea of demonstrating tumor cells, if present. Second, the bladder is emptied and its capacity

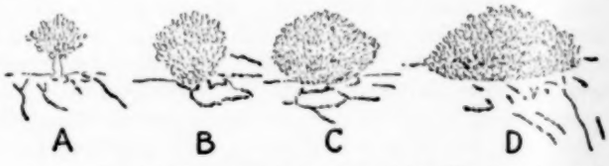

Fig. 1.—*A*, the benign polyp; *B*, stalk larger with increasing malignancy; *C*, Subsessile type, highly malignant; *D*, sessile type, highest degree of malignancy.

is estimated. It is then distended with air, to the amount of one half of its known capacity, and an excretory urographic study is carried out with this air in the bladder.

Here we wish to emphasize the importance of not relying on a technician or roentgenologist to determine the time interval or number of exposures. This can only be decided by studying each roentgenogram as it is developed, for frequently the dye excreted is not sufficient to permit an interpretation of the vesical pathologic condition. Also, various shifts of the body or of the x-ray tube may be necessary to determine the true pathologic processes present. From this study one evaluates the status of the kidneys, ureters and bladder. Should there be any complications present in the upper part of the urinary tract, one can visualize and evaluate them at this time.

For example, when urologic studies were made on a patient with a tumor of the bladder, a tumor of the left kidney was demonstrated besides the bladder growth, indicating the importance of knowing the existing pathologic conditions.

Having carried out the urographic studies, the McCarthy forward and retrograde instrument is introduced and a careful investigation of the entire bladder is made. By means of the retrograde instrument, we are able to visualize growths that are located on the roof of the bladder and just internal to the internal sphincter. Frequently, in bladders with growths that we would ordinarily interpret as being attached to the

internal sphincter, we are able to find some healthy bladder mucosa between the growth and the internal sphincter. This will indicate that less radical measures may be employed than total cystectomy with ureteral implantation.

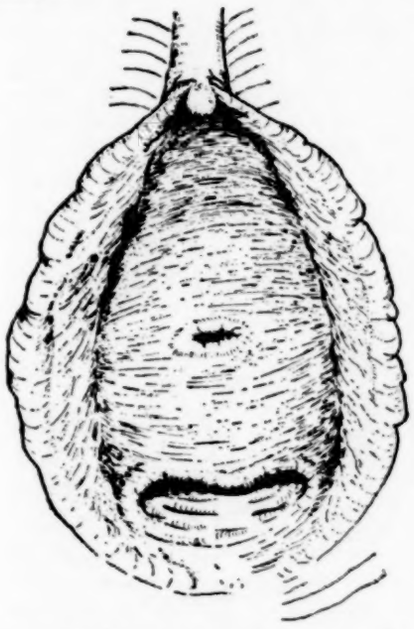

Fig. 2.—The urethral orifice and vaginal outlet.

In all instances specimens are taken for biopsy. It is unfortunate that the pathologic interpretation and classification of the bladder tumor are frequently contrary to the clinical evaluation. Errors have occurred

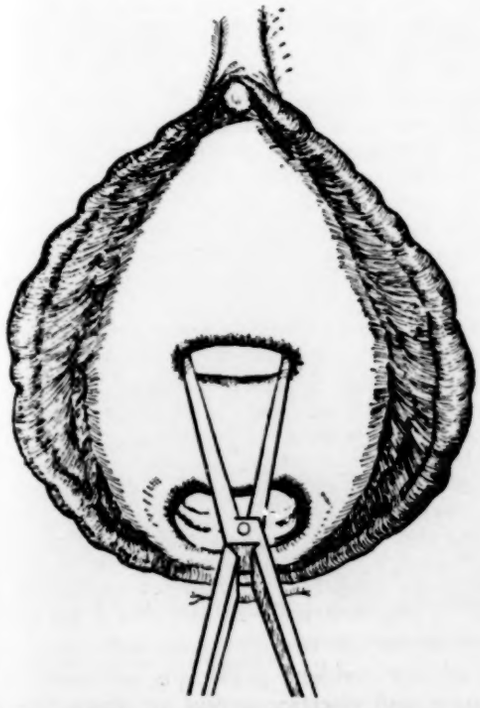

Fig. 3.—Dilatation of the urethra with Kelly clamp.

more frequently, we believe, in the pathologist's interpretation than in the urologist's clinical classification.

For example, a woman who appeared at our clinic several years ago cystoscopically showed an area of irregularity on the right side of the bladder. A specimen was sent to the laboratory for biopsy and was reported to us as being a tumor of the bladder. However, due to the cystoscopic and clinical studies, we believed that the condition was primarily an inflammatory mass, external to the bladder. An abdominal exploratory laparotomy was performed; a tubo-ovarian abscess was found, adherent to the bladder. The tube and ovary were removed; the abscess was drained. This patient made an uneventful recovery and her symptoms of bladder disease completely disappeared. Cystoscopic observation over a period of eight years showed an absolutely normal bladder. Subsequently, the same slides were reviewed by two other pathologists: one said the condition was inflammatory; the other, a tumor.

The opposite diagnostic error has also occurred. In this case a small piece of tissue was taken from the bladder at the time of cystoscopy and studied micro-

Fig. 4.—Finger in the urethra for further dilatation.

scopically. Cystoscopically, we believed that the lesion was an infiltrating carcinoma, and we sought several opinions. One pathologist called it inflammatory; three called it malignant. Another urologist was asked to examine the patient. This examination was performed with the patient under spinal anesthesia and with the bladder well distended; the growth merely appeared as an inflamed bullous edematous area. There was so much disagreement among the urologists and the pathologists that the family decided not to permit an operation because the patient was over 60 years of age and feared surgical intervention. She died one year later, and at autopsy an extensive carcinomatosis of the abdominal cavity, with secondary invasion of the bladder, was found.

According to the clinical classification, the small pedicle growth should be considered clinically benign (fig. 1). As the base of the growth becomes larger

and the tumor more sessile, the degree of malignancy is greater. Often, disregarding the pathologist's interpretation, we are guided by what we see. The small benign type of growth will respond to simple endoscopic excision and electrocoagulation of the base. For the malignant infiltrating growth involving the trigone, radical cystectomy with ureterointestinal or ureterocutaneous implantation is advisable. For those growths in resectable areas of the bladder partial cystectomy, with or without ureteral reimplantation into the bladder, is employed and advocated with expected good results. In other words, the type of surgical treatment to be undertaken rests primarily on the clinical judgment of the urologist.

DESCRIPTION OF SURGICAL PROCEDURE

The procedure we are about to describe is advocated in cases in which we are dealing with large or multiple tumors of relatively benign nature. It is especially useful where, because of size of the tumor, we are unable to definitely visualize its base or where, because of its size, gradual electrical destruction would be long and tedious, and suprapubic surgical approach would lead to a long convalescence.

As early as 1929, one of us (J. S. R.)[1] reported a case of hemangioma removed by this method. This patient was followed all these years and still is alive with no recurrence. Her stay in the hospital amounted to only three days. During the past twenty years this procedure has been carried out successfully. Recently one of us, in performing such an operation, so startled our resident physician with the ease with which the female urethra could be dilated in order to permit removal of the growth, inspection of the bladder and

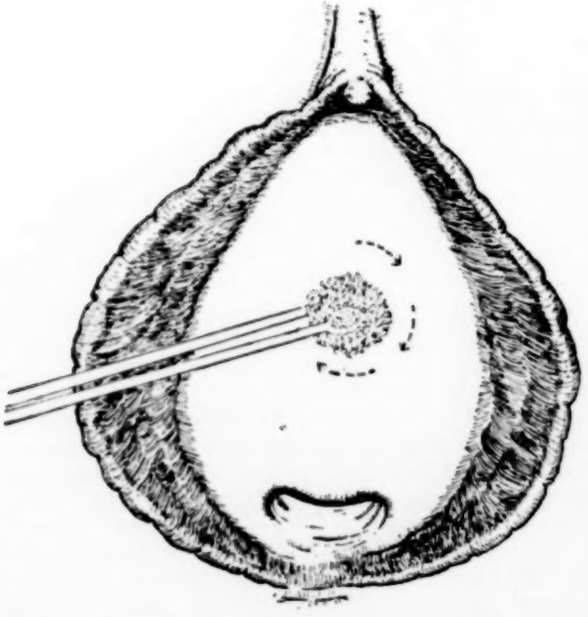

Fig. 5.—Engagement of sponge forceps, followed by twisting motion.

its bimanual palpation that our interest was stimulated in the investigation of the literature to see whether any one had ever reported this method of surgery. To date, to our knowledge, the literature does not describe this procedure exactly as we employ it. The technic we use is as follows (fig. 2):

1. Ritter, J. S., and Rattner, I. N.: Urethral Angioma, Urol. & Cutan. Rev. **33**: 6, 1929.

The patient is given spinal anesthesia in order to obtain complete relaxation of the perineum. The urethra is dilated with sounds. A simple curved Kelly clamp is introduced, and the entire urethral canal is gently stretched, avoiding, if possible, tearing of the mucosa (fig. 3). Circumferential dilatation of the urethra is carried out, with Kohlman and urethral dilators. Dura mater retractors, as well as self-retaining spring

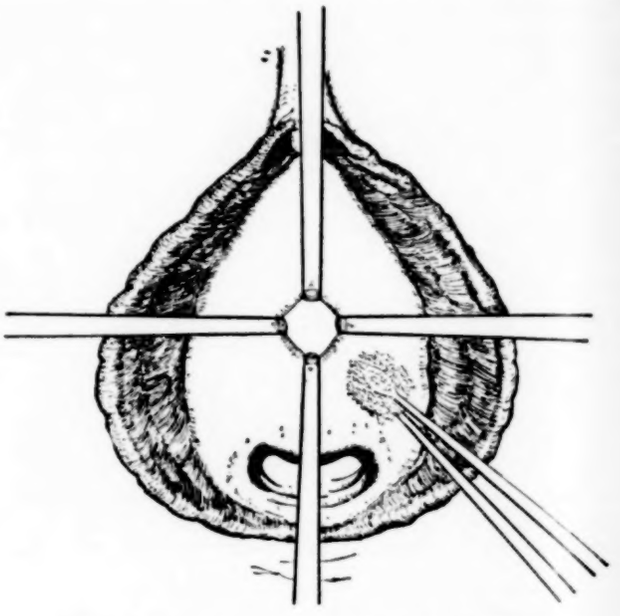

Fig. 6.—Tumor removed, dura mater retractors inserted.

retractors, placed into the urethra, aid materially in exposing the bladder for direct visualization. The index finger of one hand is introduced directly into the urethra, and gradually the entire urethra is further dilated, until one is able to introduce two or three fingers into the bladder (fig. 4). Direct and bimanual palpation with one finger in the vagina and the other in the bladder is used for determining the degree of infiltration of the base of the tumor. This aids us in ascertaining the degree of malignancy. With the finger in the bladder, and by suprapubic pressure of the other hand, the bladder can be readily palpated and its contents evaluated. The tumor is then grasped with a sponge forceps, introduced through the urethra, and the mass is drawn out of the bladder. With a twisting-pulling motion the tumor is torn off the bladder (figs. 5 and 6). Electrocoagulation is then used by applying the electric current directly to the sponge forceps. The bladder can then be everted, so that the base of the tumor may be exposed for further inspection and for the arrest of bleeding.

After removing all palpable tumors, the pan-endoscope or resectoscope is introduced into the bladder, the bleeding areas controlled and the bases of the tumors electrocoagulated more completely. A reexamination with the index finger in the bladder determines further the degree of infiltration. A 24 French Foley catheter is inserted and retained for three to four days, after which time it is removed.

To date we have had no cases of incontinence after removal of the catheter. In fact, these patients have complete urinary control.

One of our resident physicians advocated the use of a snare and electric current to snare the growth as one would a tonsil. This practice we are absolutely against, because with a large growth the base could not be seen, and one could not tell what he was snaring. Also, the dangers of perforating the bladder, and even going through the peritoneum, are great in cases in which spinal anesthesia is employed. We advise against use of such a snare (figs. 7 and 8).

REPORT OF CASES

CASE 1.—Mrs. S. L., a multipara aged 57, was admitted with painless terminal hematuria. Physical examination revealed essentially normal conditions. Vaginally, there was a relaxation of the perineum. Cystoscopic examination revealed a polypoid tumor, 1.75 cm. in diameter, arising at the vesical neck. Intravenous pyelography showed normal kidneys and ureters. This bladder tumor was removed by the method described. Three days after surgical intervention the urethral catheter was removed, and the patient had normal control of micturition. At the end of one year there has been no disturbance of urethral function. Bladder inspection has revealed normal conditions.

CASE 2.—Mrs. R. O., aged 35, with three children delivered by cesarean section because of a contracted pelvis, had painless hematuria of two years' duration. Prior to admission another urologist had advised open suprapubic fulguration of tumors of the bladder, but the patient refused because she feared another "cutting operation." On endoscopic examination three large cauliflower-like tumors were seen on the lateral wall of the bladder, close to the left ureteral orifice. The largest mass measured 3.5 by 4 by 2 cm. The urethral meatus of this patient was so relaxed that we were able to introduce the index finger into the bladder and palpate the tumors without difficulty. All tumors were removed through the dilated urethra by the method described. The pathologic report was "papillary carcinoma, grade 2." Monthly examination for six months has revealed no impairment of urination. On the last endoscopic examination there were slight cystic changes at the vesical neck without evidence of recurrence of the tumors.

CASE 3.—Mrs. A. H., a multipara aged 50, was admitted with frequency of urination, pronounced dysuria and initial hematuria of one year's duration. Vaginally the perineum was relaxed. The urethra was easily dilatable. Endoscopic examination brought into view a large bleeding hemangioma in the

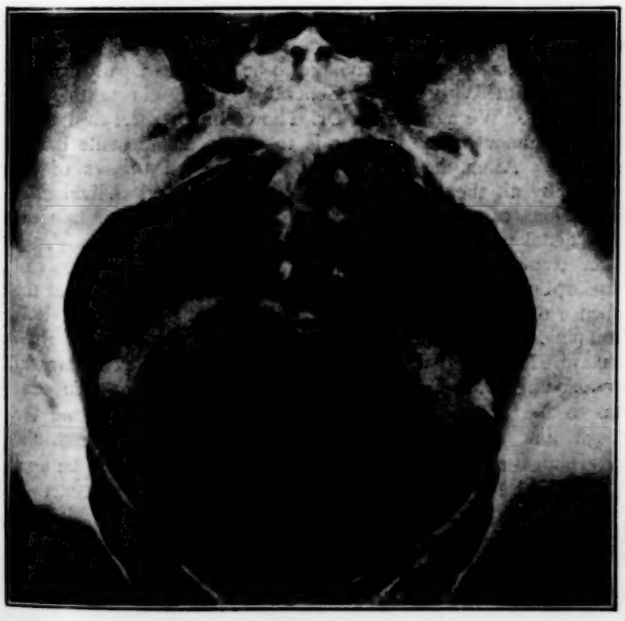

Fig. 7 (case 2).—Huge papillomatous tumor on a small pedicle, removed per urethra by the technic herein described.

upper left quadrant of the vesical neck. This was easily removed in one sweep through the dilated urethra. Recovery was rapid; control of micturition was normal.

COMMENT

We may appear to become less radical while the rest of the world is more radical in its surgical approach toward the relief of cancer. Our reasons are these:

Total cystectomy, which is being highly recommended at present, has not given the satisfactory results we all expected. We have had only 1 patient who lived five years after total cystectomy with ureteral-cutaneous implantation, but he was a despondent person. The immediate operative mortality may be low; however,

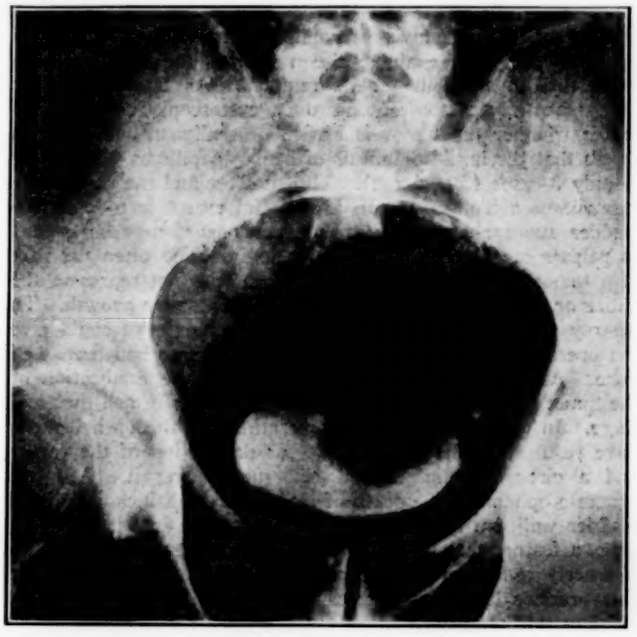

Fig. 8.—Tumor involving full thickness of the bladder wall in which the technic described herein is not used.

the morbidity is great. The patients are not happy carrying bottles around, nor can they be happy when disturbed by the proctitis and general rectal discomfort.

As for partial cystectomy or segmental resection with reimplantation of a ureter, a less radical procedure, we have patients who are living comfortably after fifteen years with apparent cure.

Recently Dr. McCarthy has recommended complete mobilization of the bladder, opening into it, and then extensive fulguration. He has had excellent results.

If we can make these patients happy and comfortable, we can accomplish much. We believe that the procedure we have advocated herewith for relatively benign growths is a long step forward. The patient is more willing to enter the hospital; the procedure is simple; removal of the growth is complete; convalescence is rapid. In this way, neither the patient nor the physician becomes discouraged.

SUMMARY AND CONCLUSION

In keeping with the present extreme effort to determine the cause of cancer and thus possibly to eradicate the disease, we hope with this paper to stimulate further interest in the earlier recognition of cancer of the female bladder. Because it is so amenable to direct treatment, early detection will be life-saving. A procedure is herein described that permits easy removal, in one stage, of early malignant growths and eradication of benign tumors. We wish to emphasize again that dilatation of the female urethra does not produce incontinence.

755 Park Avenue (Dr. Ritter).
148 East Sixty-Third Street (Dr. Shifrin).

ABSTRACT OF DISCUSSION

ON PAPERS BY DRS. STERLING AND ASH, DRS. KRETSCHMER AND STIKA AND DRS. RITTER AND SHIFRIN

DR. ERNEST RUPEL, Indianapolis: These three reports indicate the widespread interest in coping with the relatively inaccessible growths in the bladder. They need not be inaccessible because, in addition to the wide range of vision afforded by cystoscopy as a primary diagnostic procedure, inspection through the opened bladder may be not only reasonable but desirable. The duty of the urologist is to evaluate the nature of the tumor and to make recommendations for its removal. As Dr. Kretschmer said, many urologists rely on their cystoscopic diagnoses to decide whether the tumor is benign or malignant. His series shows that the initial diagnosis of benign papilloma was wrong in only 3 cases (3 per cent). The simplest and the safest way to examine a b'adder tumor of doubtful extent is to open the bladder suprapubically. Even the peritoneum may be opened to palpate the bladder more convincingly. Too often the part of a tumor seen through the cystoscope does not represent the entire or even the major portion of an infiltrative growth. To destroy that part and leave the unsuspected segment could give the operator an unwarranted belief that his job had been well done. After such an examination, if complete eradication of the tumor is probable, that operation can be performed then and there. In my experience most operations on the open bladder have resulted in the cauterization or desiccation of the tumor and a circumferential area 1 cm. surrounding it. A fairly accurate opinion of the depth of infiltration and thickness of the bladder wall can be made when the operative field is so accessible, a feature that is entirely lost by other means of approach. Formerly radon seed were implanted in the burned field, but this practice has been discontinued. After hearing what Dr. Stirling said, its use as an adjuvant will be reconsidered.

DR. THOMAS J. KIRWIN, New York: I cannot wholly agree with Dr. Stirling and Colonel Ash that present day management of vesical tumors is "too conservative." Treatment should be based on the knowledge of the etiologic basis of the disease and the diagnostic observations. No one knows anything of the causation of bladder tumors, and the diagnostic observations vary so widely from one case to another that a satisfactory treatment routine seldom can be worked out. It is not known whether cancer reaches the bladder through the blood stream or the lymphatic vessels, or whether it is induced there through the action of chemicals or other irritative substances conveyed thither by the urine. There is also the possibility of bladder tumors arising from cell nests which proliferate when the proper conditions arise in the vesical cavity. No single plan of management can deal with all these possibilities, or with that which predicates the existence of a filtrable virus as the causative agent in certain types of vesical neoplasms. Can anyone be "too conservative" when feeling his way thus blindly? Most patients with bladder tumor are advanced in years. Life insurance statistics now place the average age at death as 66.6 years. If a man or woman of this age group comes under my care I hesitate a long while before subjecting that patient to such radical surgery as the extensive and exhausting procedure of cystectomy and ureterointestinal anastomosis, or cutaneous ureterostomy. The recommendations of Drs. Ritter and Shifrin in regard to potential malignancy in supposedly benign tumors, as well as their management by radiation and other intraurethal methods, have much to commend them. I agree with their insistence on investigation of every instance of hematuria, no matter how trivial. And I join them in their tribute to the genius of Dr. Joe McCarthy, which has made possible the tremendous advances in urologic diagnosis. Dr. Kretschmer's presentation has emphasized still further the prevalance of vesical papillomatosis. The management of early cases is particularly important, but all three papers have demonstrated how difficult it is to establish the diagnosis soon enough to make "early treatment" possible. Believing it possible that some bladder tumors may be caused by a filtrable virus, I have devised a plan of management which has now proved successful in a number of cases. The individual growths are removed with a wire loop electrode and the bases cauterized with a ball electrode. The entire bladder mucosa is then swabbed with a 50 per cent phenolglycerine solution, followed after about two minutes by application of 95 per cent alcohol. This now has been done in a sufficient number of cases to justify claims that it is a "promising" method.

DR. G. J. THOMPSON, Rochester, Minn.: Biopsy is a valuable procedure. Dr. Kretschmer and Dr. Stirling might have caused one to think untruly that they do not pay much attention to the biopsy. It is known that papillary tags such as granuloma and cystitis glandularis of papillary type can resemble a true papilloma. Only the microscope can provide accurate identification. Dr. Stirling mentioned that mitotic figures were largely of academic interest. Then, strangely, he went on to say that one had to be careful about these papillomas, that sometimes they metastasized. It is difficult for me to reconcile those two statements. We have used the cystoscope to remove these growths that Dr. Ritter removes by forceps after using his finger to dilate the urethra. These tumors can be palpated on the cystoscope about as well as is possible with a finger placed through the urethra. If one is going to use the cystoscope ultimately, one may as well use it at the start of the procedure. For flat tumors we use the McCarthy resectoscope, which has a reciprocating wire loop that moves back and forth instead of side to side. In a recently studied series of 1,218 cases the female to male ratio was 1 to 4. The ages ranged from 17 to 89 years. The tumors graded by Broders' method revealed 51 per cent to be grade 1, 26 per cent grade 2, 16 per cent grade 3 and 7 per cent grade 4. The five year survival rate varied from 23 to 78 per cent. In examining and treating any patient with suspected bladder tumor, it is highly important to do a biopsy. In treating a patient who has long-standing, severe inflammation in the bladder, it is occasionally important to do a biopsy. I can recall a number of patients who had been treated for chronic interstitial cystitis for months and who had multiple cystoscopies by excellent urologists, but the true diagnosis of flat tumor was missed because tumor was not suspected. The microscope, a good pathologist and an extremely curious urologist who will examine the irritable patient under anesthesia and perform a biopsy provide the earliest possible diagnosis of bladder malignancy.

MAJOR DAVID K. WORGAN, Washington, D. C.: I would like to call attention to some considerations of ureterointestinal anastomosis. It has been my privilage to be associated with Colonel Kimbrough at Walter Reed General Hospital during the past three years. We agree with Dr. Thompson that the first thing to do in tumor of the bladder is to obtain an adequate biopsy specimen. After the biopsy, we have treated tumors of the b adder by all the accepted methods. We always individualize the various cases. 1. With Dr. Hinman, we believe that the more distal we can transplant the ureters into the sigmoid, the better chance the patient has, and the less chance there is of reabsorption of the chloride. 2. This should not be done at the expense of angulating either the bowel or the ureter. 3. It is the opinion of the chief of the urologic section at Walter Reed General Hospital that the incision in the posterior or parietal peritoneum should be in relation to the bowel and not in rela tion to the ureter. By that method it is possible to use the mesial flat of the parietal peritoneum to place beneath the ureterointestinal anastomosis. The lateral flat can then be used to be placed above the site of the anastomosis. By that method we have been able to readily and easily retroperitonealize the site of anastomosis. The Coffey II technic for transplantation of dilated ureters has proved excellent. It is best not to anchor the ureter too close or too strongly to the catheter, because it is our opinion that the catheter should be removed on the fourth to sixth day. We are enthusiastic about the Nesbit method of transplantation. It is the opinion of our chief of the urologic section that we should try it on at least a dozen dogs before we do it on any human beings. Approximately a year ago we noticed in our patients that, after removal of the rectal tube, the carbon dioxide–combining power started dropping, with chloride retention. Immediately we put the rectal tube back in place and the reverse occurred. We did not have to use lavage with water. This is probably due to the chloride reabsorption from the intestine. We have our patients use the rectal tube at night, also, to good advantage. We have not had

any cases of evisceration after the ureterosigmoid anastomosis. We routinely employ steel wire retention sutures, especially in the elderly patients.

DR. M. M. MELICOW, New York: I feel keenly that possible chaos may result from the present tendency to drop the term papilloma from the classification of bladder tumors. One notes that papilloma now has several meanings: benign, potentially malignant and malignant! If that is true the criteria of benignity and malignancy may as well be discarded. By benign tumors are meant neoplasms whose component cells are well differentiated and which contain few mitotic figures, stain evenly and show no evidence of breaking of barriers; and if a bladder tumor reveals such a picture then it is a papilloma regardless of the outcome. By malignant tumors are meant neoplasms whose cellular elements show poor or no differentiation, contain abundant mitotic figures, stain unevenly and give evidence of invasion; and if a bladder tumor shows such a picture it is an epithelioma (or carcinoma). Unfortunately, thorough removal of a papilloma does not always result in a cure—patients often have what is called a recurrence. The fault lies not with diagnosing the pathologic condition or with the histologic criteria of benignity, but with overlooking the fact that though the papilloma was removed the neoplastigenic agent which caused it continues to operate and induces a new tumor (not a recurrence). Another cause for the attempts to discard the term papilloma has been the occasional biopsy specimen that contains only a surface bite of a bladder tumor and appears histologically benign whereas the operative specimen reveals malignant growth. In such a case the tumor was not a papilloma to begin with and the biopsy was not truly representative of the contents. Better and adequate biopsies would eliminate the latter cause.

DR. W. CALHOUN STIRLING, Washington, D. C.: Dr. Kirwin missed our point in stating that we advocate more frequent use of radical surgery in these tumor cases. We said that if cystectomy is used it should be used earlier. Death usually follows from upper urinary tract infection and not from metastasis. Therefore, in the occasional case in which cystectomy is indicated early diversion of the urinary stream would prevent ultimate destruction of the kidney. Kimbrough and several English writers found little to recommend cystectomy unless performed early. We have yet to find the ideal method of preventing infection of the upper urinary tract. In answer to Dr. Thompson's remarks we consider grading of bladder tumors important, yet we are of the opinion that the clinician is in a better position to evaluate the situation than is the pathologist. The degree of infiltration, size and extent of the tumor, its situation and the condition of the ureters and kidneys, all of so much importance in determining treatment and in evaluating prognosis, can best be judged by the experienced cystoscopist. Second, most urologists do not wait to determine the grade of malignancy before they institute treatment. We use grading to aid in determining future treatment such as the placement of radon seed, roentgen ray therapy or radical surgery. Three types of grading will cover the majority of bladder tumors.

DR. HERMAN L. KRETSCHMER, Chicago: I cannot subscribe to the method of treatment recommended by Dr. Ritter. It seems to me unphysiologic and unsurgical to turn a bladder inside out to operate on a papillary tumor. Since the advent of the resectoscope, it has been possible, at least in my hands, to resect all papillomas. Before the advent of the resectoscope, 5 patients were operated on suprapubically; because of the size and position of the tumors they could not be treated through the cystoscope, with a Bugbee electrode. In the early cases biopsies were not made, yet 2 patients were living and well twenty-five and twenty-eight years after the onset of their papillomas. With the advent of the resectoscope all papillomas are resected and sent to the laboratory for histologic study so that we now have a microscopic report in each case. I was greatly interested in the discussion on the pathology and the biopsy. I always look at my own sections. Each urologist should be his own pathologist, because he has the clinical picture. Dr. Thompson quoted from some of his early work on cystitis glandularis and cystitis follicularis. It is not at all uncommon to confuse cystitis glandularis or follicularis or cystitis cystica with tumor, and I am sure that has been the experience of every urologist. I agree with Dr. Melicow and his views that, in the simple papillomas, "recurrences" are actually new tumors, because they develop in different parts of the bladder. One reason for my emphatic statement about the nomenclature of papillomas of the bladder is this wave of enthusiasm for cystectomy; one now sees a great many patients who have had their bladders removed for so-called papillary tumors, and when one looks at the specimen one would be inclined to call the papilloma a benign growth that could have been treated by resection of the tumor and fulguration of the bone. Of course, anybody who takes out a bladder for a benign papilloma and transplants the ureter has a cured patient, but cure can be effected through the cystoscope. I subscribe to Dr. Kirwin's statement about the incidence of bladder tumors in patients of advanced years and the danger of performing surgical procedures in this age group.

AUREOMYCIN IN GRANULOMA INGUINALE

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and
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Duggar [1] and associates of the Lederle Laboratories Division, American Cyanamid Company, introduced aureomycin, a new and versatile antibiotic which is derived from a strain of streptomyces. It has shown a wide range of activity against many infections, and the literature is beginning to contain many reports of the different diseases in human beings against which it is useful.

It was first employed in the treatment of human beings while we were carrying on a study of lymphogranuloma venereum [2] which was started in January 1948. During that study it occurred to one of us (L. T. W.) that it might be effective in the treatment of granuloma inguinale, and it was accordingly used in 3 cases which were described in our previous report.[3] We were both surprised and pleased over the rapid and favorable results obtained with amazingly small doses of the drug, and we decided to continue its use.

It is not necessary at this time to review the well known types of therapy which have been used in granuloma inguinale. Greenblatt [4] and his co-workers, in their splendid study carried out at the University of Georgia, treated 142 cases of granuloma inguinale with streptomycin and found that "all in all, about 10 per cent of the cases have relapsed and of those re-treated 50 per cent responded successfully to a second course of therapy. Relapses usually occurred within four months. In the follow-up of our patients it was found that among those who remained well after a six-month period relapses did not occur."

Greenblatt and his associates have corroborated our preliminary work as to the value of aureomycin in the

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From the Surgical Service of Harlem Hospital.

The aureomycin was furnished by the Lederle Laboratories Division, American Cyanamid Company, Pearl River, N. Y.

Because of lack of space the seven illustrations accompanying this paper were deleted in THE JOURNAL but will appear in the author's reprints.

1. Duggar, B. M.: Aureomycin: A Product of the Continuing Search for New Antibiotics, Ann. New York Acad. Sc. **51**: 177-181 (Nov. 30) 1948.

2. Wright, L. T.; Sanders, M.; Logan, M. A.; Prigot, A., and Hill, L. M.: Aureomycin: A New Antibiotic with Virucidal Properties; a Preliminary Report on Successful Treatment of Twenty-Five Cases of Lymphogranuloma Venereum, J. A. M. A. **138**: 408-412 (Oct. 9) 1948.

3. Wright, L. T.; Sanders, M.; Logan, M. A.; Prigot, A., and Hill, L. M.: The Treatment of Lymphogranuloma Venereum and Granuloma Inguinale in Humans with Aureomycin, Ann. New York Acad. Sc. **51**: 318-330 (Nov. 30) 1948.

4. Greenblatt, R. B.; Dienst, R. B.; Chen, C., and West, R.: Oral Aureomycin in the Therapy of Streptomycin-Resistant Granuloma Inguinale, South. M. J. **41**: 1121-1123 (Dec.) 1948.

treatment of granuloma inguinale. Another advantage of this agent over streptomycin treatment of granuloma inguinale is that aureomycin is relatively nontoxic. Any effects of this nature observed by us have been only minimal and transitory.

In over 100 patients treated with aureomycin [5] in whom all routes of administration were employed, we have not seen any serious toxic effects. In a few instances nausea and vomiting may occur on oral administration of the agent. Under our management the intravenous administration of aureomycin has produced nausea only when the dose was 3 or 4 Gm. per day. Such large doses are neither necessary nor desirable in the treatment of these cases.

In our previous paper [3] we showed that we obtained a cure in 3 cases of advanced granuloma inguinale. In this paper we wish to present a follow-up of our previously reported cases and add 9 cases of successful treatment with aureomycin.

In regard to 3 cases previously reported, the patients were seen again in our follow-up clinic and all have remained healed:

A man aged 39 who was discharged as cured on June 7, 1948 was seen Nov. 19, 1948. The penile lesion had remained closed and the patient was asymptomatic.

A woman aged 32 had suffered from granuloma inguinale for seven years and was discharged from the hospital as healed on July 7, 1948. She was examined at the follow-up clinic on Jan. 13, 1949, and all lesions had remained healed.

A woman aged 53 had granuloma inguinale of the vulva for ten years and was discharged as healed on July 13, 1948. When examined on Jan. 13, 1949, the patient was asymptomatic and all lesions had remained healed.

In this paper we are reporting 9 additional cases of granuloma inguinale treated with aureomycin. The drug was administered orally, intramuscularly and intravenously. The results were satisfactory in all instances, irrespective of the method of administration.

No effort was made on our part to scrape the lesions and determine the time of the disappearance of the Donovan bodies (Klebsiella granulomatis) from the ulcers, but rather we took complete healing of the ulcerative lesions as the criterion of effectiveness.

REPORT OF CASES

Case 1.—A Negro aged 31 was admitted to the hospital on Oct. 29, 1948, complaining of a tender mass in the right groin which had been present and draining for a period of four months. No history of a sore on the penis was obtained, although he had been receiving antisyphilitic therapy for four months without any improvement.

Physical examination revealed a bilateral inguinal adenopathy, with a draining sinus and a mass of nodes on the right measuring 5 by 10 cm. The drainage was small in amount and had a foul odor. A similar node was present on the left side.

The patient had a positive Frei reaction and a negative Kahn reaction. A biopsy was performed and Donovan bodies were found.

For the first six days the patient was given 300 mg. of aureomycin intravenously three times a day. For the next twelve days he received 50 mg. of the drug intramuscularly twice a day. Last, he was given a 250 mg. capsule of aureomycin twice a day by mouth for ten days.

At the end of the third day of treatment the node on the left side had disappeared and that on the right side measured 5 by 3 cm.; it was nontender, and the discharge was greatly reduced. At the end of fifteen days of treatment all granulations had healed and all discharge had ceased. At the time the patient was released from the hospital there were no nodes and the sinus had closed.

Case 2.—A Negro aged 29 was admitted to the hospital because of a sore on his penis of ten days' duration which was becoming increasingly painful.

Physical examination disclosed an ulcer of the penis in the right coronal sulcus with decided edema of the prepuce and distal third of the shaft. From the prepuce exuded a foul, purulent discharge. In the right inguinal region there was a mass of tender, enlarged nodes which measured 8 by 4 cm. The temperature of the patient at this time was 101 F.

Dark field examination, Frei and Kahn reactions were all negative. Biopsy of the ulcer revealed the presence of Donovan bodies.

The patient was given 500 mg. of aureomycin intravenously twice a day for three days, after which treatment was continued by giving him a 250 mg. capsule by mouth three times a day for the succeeding twenty days.

Twenty-four hours after aureomycin therapy was begun the patient became afebrile; he remained so throughout hospitalization. The tenderness disappeared from the nodes as well as the swelling in the right inguinal region, at first rapidly and then gradually. The edema of the shaft of the penis had disappeared at the end of the fourth day of treatment. The patient was discharged to the follow-up clinic on the seventh day of treatment, at which time the ulcer of the penis was only 1 cm. in diameter, the wound was granulating and epithelization was rapidly progressing. The nodes in the right groin were no longer tender and measured 1 by 3 cm. As an ambulatory patient the patient continued oral treatment; by the twenty-third day he was completely cured.

Case 3.—A Negro was hospitalized with a history of granuloma inguinale for one year. One month before admission to Harlem Hospital he had had a circumcision at another hospital, and the infected, swollen operative site exuded a discharge of foul pus. The granulomatous infection involved the prepuce and the glans penis.

Frei and Kahn reactions and dark field examination in this case were all negative. Donovan bodies were found on biopsy.

The patient was given 500 mg. of aureomycin intravenously in one dose for two days, but he complained of dizziness and nausea. Therefore he was given intramuscular injections of 50 mg. each for the succeeding ten days. For the remaining twenty days that he was in the hospital he was given 250 mg. of the drug in capsule form orally three times a day.

At the end of forty-eight hours of therapy, the pain, swelling and discharge from the penis had disappeared and the granulations had taken on a healthy appearance. Progress continued until the patient's discharge from the hospital, at which time all ulcers had completely healed.

Case 4.—A man aged 49, a Negro, was admitted with a three week history of increasing pain, ulceration of the prepuce and a foul discharge from the ulcerating area. The patient was a known diabetic and required daily injections of insulin. He was also syphilitic and had been treated for syphilis by the referring physician, who considered the lesion as a manifestation of syphilis even though it had refused to heal under intensive antisyphilitic therapy.

Physical examination showed a tender ulcer of the tip of the prepuce, which was swollen and discharged foul pus. A matted mass of tender nodes, measuring 4 by 6 cm., was present in the left inguinal region.

The Kahn reaction was 4 plus, while the Frei reaction and dark field examination were negative. Donovan bodies were found on biopsy.

The patient received 1 Gm. of aureomycin intravenously each day, divided into two doses of 500 mg., for a period of three

5. Wright, L. T.: Unpublished data.

days as initial treatment. At the end of intravenous therapy he was given 750 mg. of aureomycin a day, and this was in the form of 250 mg. capsules orally three times a day for twenty days.

The blood sugar determination varied with the degree of control of diabetes, and the patient received concomitant diabetic treatment from the medical service.

The ulcer of the penis steadily improved, and the tenderness and swelling of the inguinal nodes decreased rapidly. All lesions had disappeared at the time of the patient's discharge from the hospital at the end of twenty-three days.

CASE 5.—A married Negro woman aged 21 was admitted to the hospital with an ulcer of the posterior fourchet of the vulva that had been present for six months.

Physical examination revealed a flat, granulomatous lesion, 2 by 5 cm., of the posterior fourchet. It was tender and friable, and it bled easily. In addition the inguinal nodes on both sides were enlarged. Biopsy of the lesion showed Donovan bodies.

The patient was placed on a regimen of 250 mg. of aureomycin orally four times a day, but she left the hospital against advice on the fourth day. Three weeks later she returned, at which time her Kahn reaction was 4 plus and another biopsy of the lesion revealed the presence of Donovan bodies.

The woman was placed on oral aureomycin therapy and received 300 mg. four times a day for a period of thirty-two days.

Four days after the initiation of treatment, the lesion began to show signs of healing and had reduced to about one-half its previous size. The pruritus, tenderness and redness disappeared, and on discharge of the patient thirty-two days later the lesion had healed completely.

CASE 8.—A Negro woman aged 28 was hospitalized with a history of a mass protruding from between her legs for the past seven months. It was increasing in size and was tender and bled easily.

On physical examination a friable, pedunculated mass, which measured 8 cm. in diameter, was to be seen rising from the left labium. At the base of the pedunculated mass there was an ulcer 2 cm. in diameter, which bled easily and discharged a foul-smelling pus. A similar ulcer was noted in the suprapubic region on the left side.

The Frei reaction was negative and the Kahn reaction was 2 plus. Donovan bodies were found on biopsy.

The granulomatous tumor was removed surgically by one of us (L. T. W.). The patient was given 200 mg. of aureomycin intravenously for three days; for the succeeding ten days

Nine New Cases of Granuloma Inguinale Treated with Aureomycin

Case	Age	Sex	Duration of Disease	Site and Character of Lesion	Amount (Mg.) and Method of Administration				Period of Treatment, Days
					Oral	Intramuscular	Intravenous	Total	
1	31	M	4 mo.	Inguinal adenitis with sinus	7,500	600	5,400	13,500	28
2	29	M	10 days	Ulcer of penis; right inguinal adenitis	15,000	None	3,000	18,000	23
3	31	M	1 yr.	Ulcer of penis	15,000	1,000	2,000	18,000	32
4	49	M	3 wk.	Ulcer of prepuce; left inguinal adenitis	15,000	None	3,000	18,000	23
5	29	F	6 mo.	Ulcer of fourchet	None	1,300	800	2,100	15
6	38	F	16 yr.	Granuloma of vulva; bilateral inguinal adenitis—right inguinal draining sinus	55,800	None	None	55,800	62
7	26	F	9 mo.	Granuloma of perineum	38,400	None	None	38,400	32
8	28	F	7 mo.	Ulcer of left suprapubic area; granuloma of left labium; keloid of left labium	75,00	None	1,200	8,700	13
9	28	F	12 mo.	Granuloma of right labia	45,000	None	None	45,000	15

She was given 50 mg. of aureomycin intramuscularly twice a day for thirteen days. She was then given 200 mg. of the drug intravenously twice a day for two days. At the end of this time the ulcer was completely healed and she was discharged, apparently cured.

CASE 6.—A Negro woman aged 38 was admitted to the obstetric service in labor, at which time a routine history and physical examination revealed the presence of a large granulomatous mass of the vulva. She gave a history of having had this mass for sixteen years.

A large granulomatous lesion with ulcers extended over the vulva and clitoris. There was bilateral inguinal adenopathy with a discharging sinus from the nodes on the right side.

The Kahn and Frei reactions were negative. A biopsy revealed the presence of Donovan bodies.

Because this patient had to stay home to care for her infant, she was placed on oral aureomycin therapy. She was given 300 mg. of the drug three times a day. At the end of sixty-two days the discharging sinus from the nodes on the right side was closed and the ulcerative lesions about the vulva had all healed.

CASE 7.—A Negro woman aged 26 entered the hospital, and her chief complaint was a sore on her vulva which had persisted for nine months. It was increasing in size and itched intensely.

Physical examination disclosed a friable, granulomatous lesion of the perineum which measured 6 by 2 cm.

The Frei and Kahn reactions were negative, and Donovan bodies were found on biopsy.

while in the hospital she received a capsule of 250 mg. of aureomycin orally three times a day.

Within one week all lesions, even including the operative site, had completely healed, and the patient was discharged from the hospital.

CASE 9.—A Negro woman aged 28 was admitted to the hospital with an ulcer of the right labium which she stated had been present for one year.

Physical examination revealed a granulomatous lesion, measuring 4 by 2 cm., on the inner aspect of the right labium. It was friable but only slightly tender on palpation.

The Kahn reaction was negative and the Frei reaction positive. Donovan bodies were obtained on biopsy.

The patient was given aureomycin orally, 1 Gm. a day divided in four doses of 250 mg. each.

At the end of the fourth day the lesion measured 1 by 0.5 cm.; thereafter it continued to decrease in size until the patient was discharged as completely healed after fifteen days.

The accompanying table summarizes these case reports and gives the dose and method of administration of the aureomycin.

COMMENT

The frequency of the occurrence of syphilis, lymphogranuloma venereum and granuloma inguinale in this small series of cases is noteworthy. Three patients had positive Kahn reactions and 2 had positive Frei reactions.

In this study we intentionally used the three methods of administration of aureomycin, a fact which is indicative of the great value of this therapeutic agent under different conditions. For example, the woman who could not leave her child after delivery was able to benefit from treatment because the drug could be given orally. She was faithful in carrying out instructions and was cured.

The lack of toxicity and the fact that aureomycin can cure diseases of long standing that have been treated without success with many other drugs is of scientific interest. The absence of toxic reactions to the agent, even with relatively large doses, is a fact of considerable importance.

The patterns of dosage and method of administration of the drug are worthy of additional study. It may be categorically stated that regardless of the method of administration, patients with granuloma inguinale respond well to aureomycin. It is our impression that intravenous therapy accomplished healing more rapidly with the same dosage of the drug than did other routes of introduction.

In brief, the drug permits the clinician to use several routes rather than a single one. This fact of itself may prove not only valuable but essential in a given case.

INTRAVENOUS THERAPY

A similar study of intravenous administration of aureomycin has been carried on simultaneously at St. Vincent's Hospital, New York, by Rottino, Sanders and Philip.[6] Their observations coincide with ours as to the value of aureomycin used intravenously.

In the intravenous use of aureomycin at this hospital we have used as much as 4 Gm. of the drug a day without any toxic reactions except for nausea in an occasional patient. We have not encountered the vomiting that other observers have noted.

After it was determined that such large doses were not necessary in the treatment of our patients, we reduced the dose to 2 Gm. a day intravenously and obtained no history of nausea, vomiting or other untoward symptoms.

We administered as much as 1 Gm. of the drug in a solution of 500 cc. to a liter dissolved in 5 per cent dextrose and water. We have administered intravenously 500 mg. of aureomycin dissolved in 20 cc. of a buffer solution containing 131 mg. of *l*-leucine to each 5 cc. of diluent. This was injected intravenously in a single dose, but it was given slowly—that is, taking ten minutes for the injection. This method was used without untoward effects.

To date, in the course of administering the drug intravenously to over 50 patients with various diseases, there have arisen 3 cases of phlebitis, so phlebitis has not been a serious problem. In these 3 instances it subsided quickly and left no residual effects.

In our opinion, therefore, the intravenous administration of aureomycin is important for introducing the drug into the human body in cases where a high blood level is immediately desirable and in cases where the oral or intramuscular routes are not desirable.

SUMMARY AND CONCLUSIONS

1. A follow-up of 3 cases of granuloma inguinale, previously described, is reported in which there has been no recurrence of symptoms six months after treatment with aureomycin had ceased.

2. Nine additional cases of granuloma inguinale treated with aureomycin with satisfactory results are reported.

3. Aureomycin is more desirable than streptomycin in the treatment of granuloma inguinale because it can be used orally on ambulatory patients and is less toxic. Relapses have not been observed by us in any patients treated. In over 100 cases of various diseases [6] treated in this hospital with aureomycin we have not observed any toxic effects of a serious nature. In no instance was it necessary to discontinue the drug, although we have changed the method of administration to relieve symptoms such as mild nausea or dizziness.

4. The intravenous route of drug administration in many instances is the method of choice, although oral and intramuscular, as well as the intravenous method, will effect cures in diseases that are susceptible to this antibiotic. The fact that aureomycin can be effective regardless of the route of administration makes it an antibiotic of great value. Where high blood levels are immediately essential to overcome an overwhelming infection, the intravenous route is the desired approach.

5. Aureomycin will not take the place of surgical measures in cases in which operative intervention is indicated in the treatment of granuloma inguinale. The proper treatment is surgical intervention combined with aureomycin, where a surgical approach is indicated.

6. Rottino, A.; Sanders, M., and Philip, W. E.: Personal communication to the authors.

Clinical Notes, Suggestions and New Instruments

TREATMENT OF HERPES ZOSTER WITH AUREOMYCIN

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The treatment of herpes zoster at its best has been unsatisfactory in the past. The multitude of therapeutic agents recommended is an indication of the lack of efficacy of any one of these agents in the majority of cases.

Local treatment has been concerned primarily with protecting the parts from infection and injury and with obtaining relief from itching and pain. Ordinary dusting powder with morphine and camphor added has been used. The administration of calamine lotion in generous applications is sometimes helpful, or collodion containing an ichthammol preparation may be painted over the affected area. Also recommended as helpful in some cases has been the application of a galvanic current to the affected nerve. Roentgen therapy in filtered doses to the posterior nerve root affected, in combination with the intravenous use of sodium iodide, is occasionally successful. Posterior pituitary injection has been given intramuscularly with relief in some obstetric cases.

In spite of all these measures, there are frequent cases in which the patients do not obtain any relief, and the affliction runs its natural course.

A colleague reported to us that a patient in whom herpes zoster had developed was being given roentgen rays. At the same time another condition developed in the patient for which aureomycin was administered. Our colleague reported that there was dramatic relief of the herpes within twenty-four hours of the time aureomycin therapy was started. It was impossible to tell whether the benefit resulted from the aureomycin or the roentgen therapy. It occurred to us that in as much as herpes

zoster is supposedly a virus infection affecting the posterior nerve root, the administration of aureomycin might prove helpful in controlling this disease. Accordingly, we administered 500 mg. of aureomycin every six hours for two days to 4 patients whom we recently had occasion to treat. Dramatic results were obtained in 3 cases and good results in the fourth case.

REPORT OF CASES

CASE 1.—A 38 year old white man had burning, lancinating pains down the medial side of the right leg to the knee and along the right side of the scrotum and penis. He stated that these pains had started about five days previously and were gradually becoming more severe. The area affected was extremely sensitive to the pressure of clothing. There was a typical vesicular rash on an inflammatory base which was distributed along the right shaft of the penis and the right side of the scrotum and in the right perineal area. The patient was given an acetylsalicylic acid compound with codeine for control of pain, seconal sodium® (sodium 5-allyl-5-[1-methylbutyl-barbiturate]) for sedation and roentgen therapy over the posterior nerve root of the affected nerve. Three days later, after two roentgen treatments, the patient complained that the pain was increasing and that the codeine and seconal sodium® were not helping him. It was at this time that we heard of the aforementioned case. Accordingly, the patient was given aureomycin, 500 mg. every six hours, and told to continue this for two days. He reported that within twenty-four hours there was dramatic and complete relief of pain. Forty-eight hours later the patient was free from pain and the rash was drying and beginning to disappear. Within five days the rash was completely gone, and there was no scarring.

CASE 2.—A 26 year old white man had pain under his left arm and in the left side of his chest of two days' duration. There were three small crops of watery vesicles on an inflammatory base, each about 4 cm. in diameter. One was located over the left shoulder blade, another on the posterior fold of the left axilla and the third on the left side of the chest anteriorly at the level of the third costal interspace. The patient was given 500 mg. of aureomycin every six hours for two days. He reported dramatic relief from pain within twenty-four hours. The rash dried and disappeared within five days.

CASE 3.—A 48 year old white man had pain in the left side of his back of one week's duration and a small rash of two days' duration. The pain was burning in nature and extremely severe. There was a small crop of watery vesicles on an erythematous base about 5 cm. in diameter and located at the left costovertebral angle. The patient was given aureomycin, 500 mg. every six hours for two days. He reported moderate relief from pain in twenty-four hours. Some pain persisted for three or four days, but this was adequately controlled by the use of codeine. The rash disappeared within seven days.

CASE 4.—An 11 year old white girl had pain in the posterior and anterior regions of the chest of four days' duration. There was a small patch of watery vesicles on an erythematous base about 3 cm. in diameter located medial to the left shoulder blade at the level of the fifth rib. Her temperature was 102 F. The patient was given 250 mg. of aureomycin every six hours for two days. The patient's father reported dramatic relief from her pain within twenty-four hours and no further elevation of temperature. The rash had subsided within four days. Five days later acute poliomyelitis developed.

COMMENT

To our knowledge there have not appeared any written reports on the use of aureomycin in the treatment of herpes zoster. It was by accident that we heard of the possible beneficial effects of aureomycin from a colleague. With this as a basis, we treated 4 patients who had herpes zoster with aureomycin, with the effective results recorded. This report is submitted in the hope that further investigation will produce equally good results in the treatment of a disorder which, in the past, has been so refractory in resisting all forms of therapy.

Council on Pharmacy and Chemistry

REPORT TO THE COUNCIL

The Council has authorized publication of the following report from the Therapeutic Trials Committee, a standing committee of the Council on Pharmacy and Chemistry.

AUSTIN SMITH, M.D., *Secretary.*

The evaluation of analgesic and narcotic drugs presents difficulties not encountered ordinarily in the appraisal of other therapeutic agents. The measurement of pain and the action of drugs in alleviating this symptom are difficult to determine by animal experimentation. Clinical evaluation also is difficult because of the inability to estimate pain in human subjects and hence to make accurate quantitative comparisons among various analgesic agents.

Because of the intensive study of this problem which has been undertaken in the Anesthesia Laboratory of Harvard Medical School and because the methods which have been developed have been successfully utilized by the investigators in this institution, the Therapeutic Trials Committee invited Dr. Henry K. Beecher and his associates to submit part I, "Methods in the Clinical Evaluation of New Analgesics" of the following report, "New Analgesics."

The Committee feels that although the procedures described are not yet perfect, they represent a distinct advance in the methods available for quantitative evaluation of the therapeutic efficacy of this class of drugs. For this reason the Committee has adopted this report for publication.

To illustrate the application of these procedures in the study of new analgesics, the Committee also voted to adopt the two companion reports (parts II and III), on methadone and its isomers. The Committee wishes to encourage clinical investigators to give more consideration to the methods of clinical research on therapeutic agents and presents these reports with the hope that others will be encouraged to submit similar studies on other classes of drugs for which methods of critical evaluation are needed.

WALTON VAN WINKLE JR., M.D., *Secretary,*
Therapeutic Trials Committee.

NEW ANALGESICS

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I. METHODS IN THE CLINICAL EVALUATION OF NEW ANALGESICS

The increasing number of synthetic narcotics emphasizes the need for systematizing the methods of evaluating these new drugs in terms that will make possible comparisons in different clinics.[1] Our experience with the method here presented covers a period of three years spent on the clinical appraisal of methadone and its isomers. Our purpose is threefold: (1) to present the major problems involved in the clinical appraisal of new analgesics, (2) to outline the methods by which we have attempted to solve these problems and (3) to point out the pitfalls in our method with suggestions for improvement. In short, our purpose is to set down in general terms a plan for the clinical evaluation of any new analgesics.

From the Anesthesia Laboratory of the Harvard Medical School at the Massachusetts General Hospital, Boston.

This work was carried out under grants from the United States Public Health Service, RG 301-C, and from the United States Army, W-49-007-MD-371.

Dr. Nathan B. Eddy suggested that we study the methadones, provided the agents for study and gave us much helpful counsel throughout the work; Dr. Walton Van Winkle Jr. suggested that we prepare this paper on general methods; Dr. Oliver H. Straus made many useful suggestions early in the course of this work, and Dr. Frederick C. Mosteller, associate professor of mathematical statistics, Harvard University, gave guidance in statistical matters.

1. The transfer of a new drug from the laboratory to the clinic follows testing in animals adequate to minimize the possibility in man of serious organic impairment by the agent.

THE PROBLEMS

The clinical evaluation of any new analgesics involves two major groups of problems, immediate and delayed.

Immediate Problems.—There are two main questions: (1) What is the new agent's analgesic power in man in comparison with morphine as a standard? (2) What are its signs of acute toxicity in man, and what are the incidence and importance of these signs in comparison with those of morphine? This report is concerned solely with these two questions.

Delayed Problems.—Organic damage can be delayed in appearance after a single dose or delayed until the cumulative effects of repeated doses can emerge. Final evaluation of a new narcotic must, of course, include answers to questions of acquired sensitivity, of tolerance and of addiction; but these problems are beyond the scope of the present report.

THE METHOD

General.—The method employed involves two groups of subjects: (*a*) patients in pain, for the study of the analgesic power of the new narcotic, and (*b*) healthy volunteer subjects, for the appraisal of side actions of the new agent. Morphine was used as the standard for comparison in both groups of subjects; isotonic sodium chloride solution was the control in the healthy, volunteer group. All drugs and the control were dealt with as "unknowns."

EVALUATION OF ANALGESIC POWER

Subjects.—Appraisal of real analgesic power must be based on the capacity of the agent to relieve "natural pain," pain that is a consequence of disease or trauma. Thus, the precisely reproduced trauma inflicted by the surgeon provides in surgical patients a large group of subjects suitable for study. While it is true that there is no absolute correlation between the surgical wound and the incidence or degree of pain, the use of this type of subject reduces to some extent the number of variables in a complex situation.

The patients chosen for use as subjects were adults who had recently undergone a major surgical procedure and were psychologically oriented and capable of answering questions referable to their pain. They had no evidence of surgical shock, impaired hepatic function, active asthma, myxedema or seriously reduced vital capacity.

Management and Distribution of Drugs.—In order to eliminate the factor of prejudice which enters into the evaluation of any promising new analgesic, we concealed the identity of all drugs from the observers who collected the data. All drugs were prescribed by code designations, for example, morphine "P" and morphine "Q," and the drug codes were changed frequently. The doses were calculated in milligrams per 150 pounds (68 Kg.) of body weight. The route of administration was subcutaneous in all cases.

In the initial stages of trial, each new drug was given in small doses (4 to 5 mg.). If the small dose proved ineffective and produced no serious side effects, it was increased 2 to 5 mg. at a time until pain was adequately controlled. An attempt was made to carry each patient through his postoperative course with a single analgesic, but, if a patient failed to get adequate relief of pain after two doses of one drug, another drug was substituted. An alternative system will be considered in the comment.

The analgesic power of each drug was assayed in at least three ranges of the dose-effect curve: (1) in the AD 90 per cent range, which is defined as the analgesic dose giving moderate to complete relief of pain in 90 per cent of the subjects, (2) in the range immediately below the AD 90 per cent and (3) in the range immediately above the AD 90 per cent. Establishment of the analgesic potency of a given dose range depended in general on the efficacy of that dose in a series of 25 or more patients. Occasionally, when low doses were given to determine the shape of the dose-effect curve, if data on a dozen patients fitted the curve, they were accepted as adequate. We are examining the possibility of improving the precision of our estimates of the AD 90 per cent.

Several schemes were employed to effect an equal distribution of drugs among patients with similar operations. Because of the unpredictable variability of the types of operations done from day to day, the most satisfactory method proved to be the alternation of drugs every two to three weeks.

Data.—The period during which data were collected began at the time of each patient's first postoperative dose and continued until the pain diminished to such extent that a potent analgesic was not needed or until three postoperative days had elapsed. The shortcomings of this will be considered in the comment.

Data on each dose included: (1) the name, age and sex of the patient, (2) the operative procedure, classified as intra-abdominal, intrathoracic or peripheral, (3) the indication for the dose, that is, the need to relieve wound pain, musculoskeletal pain, headache or "gas" pains (doses erroneously given for anxiety, restlessness or insomnia were discarded), (4) the classification of the pain in terms of constancy and intensity, (5) the drug, the dose and the time of injection, (6) the interval in minutes from the time of drug injection to the time of onset of relief, (7) the extent of maximum relief, graded as none, slight, moderate or complete, on the basis of the patient's estimate (if the patient went to sleep after the dose, relief was classified as complete—a better system is considered in the comment), (8) the duration of relief in minutes (the interval from the onset of relief to the return of pain to the predrug status) and (9) the incidence of side effects.

These observations were made by experienced technicians on all doses given between 8 a. m. and 10 p. m. In order to obtain this information, it was necessary for the technician to interview the patient before the dose was given, to remain with the patient for at least half an hour following the administration of the dose to determine the occurrence of relief and the time of onset and thereafter to interview the patient once every hour.

The effects of doses given between 10 p. m. and 8 a. m. were not observed by a technician, but, if reliable information about these doses could be obtained from the night nurses or from questioning the patients on the following morning, it was recorded and included in the results. If no information could be obtained, these "night" doses were recorded as "not observed" and discarded.

Analysis of Data.—Comparability of Patient Groups: The first objective of our analysis of data was the determination of whether, within the limits of sampling

error, the patients in whom the new drug was tested were comparable to the group who received morphine. The three requirements of comparability were: (1) age, (2) sex and (3) operation.

Comparability of the two groups of patients with respect to age was tested by calculating the ratio of the difference between the mean age of the two groups to the standard error of difference of the two means. The minimal level of significance of this ratio was the conventional level of 2.0, i. e., odds of 20: 1 against chance occurrence of a difference equal to or greater than the observed difference. This test of comparability of means was supplemented by an examination of the frequency distribution to make certain that no widely disparate age groups were present in one group but not another.

Comparability of the percentage of male and of female subjects within each group and the percentage of patients in each group who had a given operation was tested by the same method applied to percentages instead of to means.

Establishment of Analgesic Equivalence[2]: In the analysis of data on pain relief, all types of pain were treated together. We hoped to analyze separately the power of each drug to relieve various types of pain (wound, musculoskeletal, headache) of varying degrees of constancy and intensity, but the data were insufficient for such a detailed analysis.

The basis for comparison of the analgesic equivalence of each new drug with morphine was an arbitrarily chosen standard dose, the AD 90 per cent. Therefore, the first problem involved the establishment of the AD 90 of each new drug and of morphine. This was done in the following manner.

First, for each dose range (4 to 6, 7 to 9, milligrams per 150 pounds) of each drug, the percentage of moderate to complete pain relief was calculated on the basis of the effect of the total number of doses given within that range. Second, a tentative AD 90 was selected. Third, the observed percentage of the tentative AD 90 (which might be anywhere from 88 to 92 per cent) was compared with the percentage of relief of the next lower dose range in order to determine whether the approximate AD 90 chosen was correct. The method of testing was the same as that used for determining the comparability of the percentage of male and female subjects among any two patient groups.

Once the AD 90 of each new drug and of morphine had been established, the analgesic equivalence of each new narcotic in comparison with morphine was expressed as the ratio of the AD 90 of the new drug and the AD 90 of morphine.

Speed of Action and Duration of Effect in Patients: The analysis of the data on speed of action and duration of effect by precise statistical methods was limited by an error inherent in these types of data. In other words, the error in obtaining from the patient the exact time of onset of relief and the exact time of the return of pain to the predrug status varied probably more than the difference between the mean onsets of action (or duration of effect) of any two drugs, so that a statistical analysis of the reliability of differences between means would be obscured by the reporting.

For this reason, we were obliged to limit the analysis to the calculation of the means and standard errors of onset and duration and to conclude simply on the basis of inspection of these data that there were no apparent differences between the new drugs and morphine. Certainly the observed differences were so small that from a clinical point of view the means could be regarded as the same.

Side Effects in Patients: The data on side effects in postoperative patients were not sufficiently reliable to justify statistical analysis. In most cases it was impossible to separate the narcotic side effects from the side actions of other medications given and from physiologic disturbances related to the anesthesia or to the operative procedure. For this reason, we were obliged to seek answers to the problems of side action potency through the use of healthy volunteer subjects.

APPRAISAL OF SIDE ACTION POTENCY

Subjects and Subject Management.—The first group of subjects used for the study of side actions consisted of 29 volunteer male college students between the ages of 21 and 30. Before any man was chosen as a subject, a history was taken and a thorough physical examination was made to exclude organic disease or known sensitivity to drugs. A second similar study was later made of 28 volunteers.

The subjects reported to us in groups of 4 to 8 men one day a week throughout a five week period of testing. The night preceding each test day, the subjects were not allowed to consume any alcohol and were required to sleep at least seven hours. On the morning of each test day, each man ate a standardized light breakfast, consisting of orange juice, toast and coffee, and reported to us one-half hour before any observations were to begin. During this period he sat quietly in a single room where he was permitted to read or study. After each man had received his drug injection, he remained in the hospital for a five hour period of observation, during which time his activities were regulated as follows: (1) He was confined to a single room, where he could study or read while sitting in an armchair. He was not allowed to lie down unless such severe symptoms developed that he was unable to remain ambulatory. (2) At hourly intervals he was required to walk in the corridor for a period of five minutes. (3) He was not allowed to converse with his fellow subjects. (4) He was not permitted to smoke.

The reason for our emphasis on ambulation was to put the drugs studied to a reasonably severe test of their potentialities as producers of side actions. In general, the incidence of side effects of narcotics is higher in ambulatory than in recumbent subjects. The isolation of subjects in single rooms served as an important barrier against the possible transference of symptoms by suggestion from one subject to another.

Distribution and Management of Drugs.—In so far as possible, all drug doses were chosen on the basis of equivalent analgesic potency expressed in milligrams per 150 pounds of body weight. Morphine was used as the standard for comparison and isotonic sodium chloride solution as the control. All drugs were administered subcutaneously, and their identity was unknown to the subjects and to all except one observer. The standard, the control and each new drug were all tested in each subject, but only one agent was given in a single week. The order of administration of the drugs was varied at random in the individual subject.

Data.—The following observations were made on each subject: (1) Incidence, time of onset and dura-

2. Any comparison of side actions of two drugs has significance, of course, only if the doses tested have equal analgesic power.

tion of symptoms and signs obtained by direct observation and neutral questioning of each subject every ten minutes during the first half-hour after drug injection and thereafter every thirty minutes until five hours after injection. Follow-up reports on symptoms continuing beyond five hours or developing after five hours were obtained from the subjects at the time of their next visit, one week later. (2) Respiratory rate, pulse rate and blood pressure five to ten minutes before drug injection and at thirty minutes, one hour, two, three, four and five hours after injection. (3) Pain threshold, determined by the Wolff-Hardy technic before drug injection and at ninety minutes after injection. This is considered by Seevers and Pfeiffer and by Wolff and Hardy to be the average time of peak elevation of the pain threshold by morphine.[3] Our unsatisfactory results with this technic are described herein.

Analysis of Data.—Symptom Frequency: The first portion of the analysis dealt with the frequencies of all symptoms for each new drug, for morphine and for the control. Its purpose was to determine with respect to over-all symptom incidence: (*a*) whether morphine and the new drugs were toxic in comparison with isotonic sodium chloride solution and (*b*) if they were toxic, in what respect this was so and how the toxicity of each new drug compared with that of morphine.

TABLE 1.—*Second Study: Nausea*

	d,l-Isomethadone		
Sodium chloride solution	Reacting	Not Reacting	Totals
Reacting	1	1	2
Not reacting	7	19	26
Totals	8	20	28

The method used for examining these two problems was the same. It involved the calculation of the Pearsonian coefficient of correlation (r) for (1) each drug compared with isotonic sodium chloride solution and (2) for each new drug compared with morphine. The basic data used in the calculation of r consisted of the absolute frequency of each symptom produced by each of the two drugs entering into the comparison. If the incidence of any symptom was less than three for either of the drugs in the comparison, the symptom was excluded from the calculation to avoid falsely high correlations. The purpose here was to construct a sort of index of similarity of effect of the two drugs. When the correlation is high the index is rather informative, but when the correlation is low the index is not informative. High correlation implies that symptom by symptom the two drugs have a fairly regular relationship in the proportion of persons in whom the symptom is observed. No significance tests are available for this index; it is purely descriptive.

After the general relationships in toxicity had been determined, the next step in the analysis compared the reliability of differences in the incidence of single symptoms for each drug compared with isotonic sodium chloride solution and each new drug compared with morphine. The method used was chi square (χ^2) with Yates's correction for small samples.

In the ordinary χ^2 test for a 2 by 2 table we ask whether there is association or "correlation" between the variables used to form the double dichotomy. For example, we might have two groups of persons, normal subjects and postoperative patients, and observe the incidence of nausea in each group when morphine sulfate is used as an analgesic. In other words, we ask whether there is any association among reacting—not reacting and normal—postoperative patients. In this study we are not concerned with this classic use of χ^2.

We tested two different drugs in the same subjects and observed the incidence of symptoms. It would be commonplace to expect association. We would expect persons who have nausea with one narcotic medication to be more likely than others to have nausea with another medication, and similarly those who do not have nausea from one medication would be less likely to have nausea from another than those who do. (This is not strictly true, but for a large variety of medicaments this is the important point.) It should be noted that this is usually a better design for such an experiment than tests of two different sets of subjects, one for each drug. The obvious association due to readiness (susceptibility) or unreadiness to react gives us an opportunity to sharpen our results by comparing each subject with himself in the present design.

The unusual feature here is that we are comparing the two margins of a 2 by 2 table, rather than asking whether there is association between the two variables. For example,[4] if we compare the number that became nauseated while receiving the sodium chloride solution with those so reacting to *d,l*-isomethadone, we have the 2 by 2 table, "Second Study: Nausea" (table 1). We are interested in knowing whether the number reacting to *d,l*-isomethadone is really greater than that reacting to the sodium chloride solution or whether the discrepancy between 8 and 2 could be accounted for by chance variations alone. The unusual feature here is that we do not have two independent groups of subjects taking the two medications, but the same group reacting to two different medications. This means that we have matched subjects, a situation common when we are dealing with measurement data but apparently not so common when we are treating qualitative data. The formula for computing χ^2 here is approximately

$$\chi^2 = \frac{(|b-c|-1)^2}{b+c-\frac{(b-c)^2}{N}}$$

where b is the number in the upper right hand cell (1 in the example) c is the number in the lower left hand cell (7 in this example) and N is the total number of subjects (28 in the example). The -1 in the numerator is the correction for continuity, and the vertical bars mean to take the difference but attach a positive sign. To complete our example:

$$\chi^2 = \frac{(|1-7|-1)^2}{1+7-\frac{(1-7)^2}{29}} = \frac{(6-)^2}{8-\frac{36}{29}} = 3.70$$

As usual, χ^2 has one degree of freedom.

We give the marginal totals reacting because χ^2 does not tell the direction, i. e., it only suggests the magnitude of the difference without telling for which drug the symptom appeared most frequently.

We have also given the probability level (*loc. cit.*). It should not be thought that we regard these results

3. (*a*) Seevers, M. H., and Pfeiffer, C. C.: A Study of the Analgesia, Subjective Depression and Euphoria Produced by Morphine, Heroin, Dilaudid and Codeine in the Normal Human Subject, J. Pharmacol. & Exper. Therap. **56**: 166 (Feb.) 1936. (*b*) Wolff, H. G.; Hardy, J. D., and Goodell, H.: Studies on Pain: Measurement of the Effect of Morphine, Codeine, and Other Opiates on the Pain Threshold and an Analysis of Their Relation to the Pain Experience, J. Clin. Invest. **19**: 659 (July) 1940.

4. See table 13.

as many tests of significance. Rather we prefer to use the P values as an index of agreement between two drugs. For example, let us compare morphine sulfate with *l*-isomethadone in the second study. If one looks down the P column for this study, one finds that the P values are rather high, i. e., largely over 0.1 for most symptoms. The higher the P value, the more comparable the rate of incidence of a symptom observed for two drugs. However, we observe a few striking differences: subjective ataxia, nausea, objective ataxia, heavy head and dry mouth. Of course, when we examine thirty symptoms we expect some of them to give results beyond the 0.05 probability level by chance alone (about one twentieth) even when the drugs have the same rate of incidence. But we observe five such symptoms rather than one or two, so that we have reason to be encouraged that some of these differences may be real. We are particularly encouraged by the fact that nausea is among this small list showing great differences, and we are particularly encouraged that it has the second lowest probability on the list. *l*-Isomethadone, therefore, seems to be showing a real difference in nausea rate and is certainly worth further study as a possible replacement for morphine sulfate. This is an example of the use of these computations.

Symptom Onset and Symptom Duration: In the following discussion the term "symptom onset" denotes the interval between drug injection and the appearance of the symptom; "symptom duration" means the interval between the appearance and the disappearance of the symptoms.

The statistical analysis of the data on symptom onsets and durations was limited by two factors: (*a*) the symptom incidence for the sodium chloride solution or any relatively nontoxic drug was so low that no analysis of onsets and durations could be made, and (*b*) the distribution of symptom onsets and durations for the more toxic drugs was, in many cases, abnormal (i. e., bimodal, or included many extreme values), so that the mean symptom onset and duration could not safely be used as true measures of central tendency. This being the case, there was no method by which the reliability of differences between the symptom onsets and durations could be tested.

We therefore resorted to a graphic plot of the time course of each symptom for each drug and for the control, in so far as the incidence of each particular symptom permitted. The ordinate of each graph represented the percentage of subjects who had the symptom, and the abscissa represented the time in minutes after drug injection. The upward slope of each curve demonstrated the times of onset, the height of the curve, the times of peak occurrence, and the downward slope and the times of disappearance. The drugs and the control were then compared by inspection of these graphs as to time of onset, the time of peak occurrence and time of disappearance of each symptom.

Drug Effects on Respiratory Rate, Pulse Rate and Blood Pressure: The analysis of the data on respiratory rate[5] was designed to answer two questions: (1) Did morphine and the new drugs affect the mean respiratory rate of the group of subjects? (2) If so, how did the magnitude of the effect produced by the new drugs compare with that produced by morphine?

5. Even a rough appraisal of the respiratory effect of a drug must include volume studies as well as rate. We preferred not to introduce this technic into these studies, where we wished to avoid as much introspection as possible, but believe that this matter should be examined separately.

Before trying to answer these two questions, we need to make some remarks about the procedures used.

In experiments with respiratory rates there were two studies, called here first study and second study. There were two different groups of subjects in the two studies. Measurement of rates differed in the two studies as follows: (1) In the first study the predrug respiratory rate was taken after fifteen minutes' rest, while in the second study the predrug rate was taken after thirty minutes' rest. (2) In the first study the rate was obtained by counting the number of inspirations in thirty seconds and multiplying by 2, while in the second study the rate was taken by counting inspirations for sixty seconds. We found that the methods used affected the observations considerably. An analysis of variance showed that under the conditions of the second study it was possible to get excellent control in the predrug respiratory rates, while under the conditions of the first study predrug respiratory rates were more variable from day to day than is desirable in such studies.

The evidence for this is given in two analyses of variance tables (tables 2 and 3).

TABLE 2.—*Analysis of Respiratory Rates for First Study*

Source of Variation	Degrees of Freedom	Sums of Squares	Mean Square
Total	144	1,315.03	.....
Predrug occasions	4	72.27	18.07
Between subjects	28	607.83	21.71
Error	112	634.92	5.47

TABLE 3.—*Analysis of Respiratory Rates for Second Study*

Source of Variation	Degrees of Freedom	Sums of Squares	Mean Square
Total	111	974.90	.....
Predrug occasions	3	6.88	2.29
Between subjects	27	736.24	27.27
Error	81	231.87	2.86

If the predrug occasions are appropriately standardized, the residual error mean square (last line in tables) should be the same order of magnitude as the mean square due to predrug occasions. In the first study we see that the variability due to predrug occasions is much larger than that for residual or experimental error. In the second study these same mean squares are almost the same size. This is what we would expect to find if the subjects are properly standardized.

We also find that the residual error of the first study is larger than that for the second study. We like the residual error to be as small as possible. It is difficult to know whether the decrease in error comes from the improved timing or the improved rest condition—more likely it is a combination of the two. The search for optimum designs for such experiments is being pursued further.

We have made further analyses of drops in respiratory rate with various drugs. We have found that drops in respiratory rates due to drugs are influenced considerably by initial respiratory rates. For example, with the dosage we are using, a subject with an initial respiratory rate of 25 will drop about 6 respirations per minute one-half hour after administration of morphine sulfate while a subject with an initial rate of 13 will maintain about the same rate one-half hour after administration of morphine sulfate. In order to ana-

lyze our data carefully we must take such a differential drop into account. This has not yet been done. We should be able to handle the problem by standard methods of analysis of covariance.

Furthermore, the drop at the end of one-half hour may not be the greatest drop for the dosages used, so that we prefer to defer our conclusions on this matter for later reports.

To come back to the questions initially posed: (1) Did morphine and the new drugs affect the mean respiratory rate of the group of subjects? Yes. Analyses of variance now at hand show clearly that mean drop in respiratory rate is different for all the drugs considered (morphine sulfate, *d,l*-isomethadone, *l*-isomethadone, *d,l*-methadone, *l*-methadone) from the drop for sodium chloride solution. (2) If so, how did the magnitude of the effect produced by the new drugs compare with that produced by morphine? We are still not in a position to answer this question authoritatively. However, we do have leads which suggest methods of analysis to be used. These have been discussed in the foregoing text.

The data on pulse rate and systolic and diastolic blood pressure were analyzed in a way similar to those on respiratory rate.

Drug Effect on Pain Threshold: Inspection of the data on pain thresholds determined by the Wolff-Hardy technic revealed such gross inconsistencies that a detailed statistical analysis was not justified. Some thresholds were higher after the injection of isotonic sodium chloride solution; some were lower after the administration of morphine, and these discrepancies were common. These inconsistencies were apparent not only when one of us conducted the test but also when a physician with years of experience with the technic tested the subjects. Therefore, we concluded that this test was not satisfactory for our purposes. Our apparatus was accurately calibrated. The subjects were intelligent, cooperative, college men who had been drilled in the technic before the study started. They were not trained technicians, to be sure, but since the technic was applied to each man eleven times in a five week period, these subjects became somewhat experienced observers.

COMMENT

Certain general requirements of methods of evaluating new narcotics have emerged in the course of our experience with the particular method presented here. We shall discuss our method in the light of these, pointing out the instances in which the method fails and suggesting ways by which the defects of the method may be corrected.

1. *Delegation of Responsibility for the Clinical Evaluation to Full Time Investigators.*—The accurate appraisal of new narcotics is so time consuming that it should not be undertaken by busy, practicing clinicians who are burdened with other responsibilities but by investigators who can devote their entire attention to it. The operation of our method, for instance, required the full time services of one physician and three technicians.

2. *Safety.*—The protection of the subjects utilized in testing new narcotics is the most important first responsibility a method must take into account. The screening of patients in whom the use of morphine is contraindicated (i. e., patients with myxedema, hepatic disease), the use of small doses of the new drug in its initial stages of trial and the careful watch for incipient untoward reactions are the obvious precautions which must be taken. These safety measures were a part of the standard routine of our method, and we encountered no serious mishap in the course of administering two thousand doses to 405 patients.

The question of whether it is safe to expose healthy young subjects to the effects of narcotics can be debated. We are of the opinion that the use of these men is justified, since the risk involved is slight and since valuable data on side action potency could not be obtained in any other way. However, in view of the fact that a considerable number of the subjects experienced euphoria, we believe that the same subjects should not be used for more than one group of experiments.

3. *Objectivity of Data.*—Fulfilment of this requirement necessitates the elimination of bias and prejudice on the part of the observers who collect the data. Therefore, all drugs must be dealt with as "unknowns."

4. *Use of a Standard and a Control.*—The use of a standard (morphine) provides the investigator with a point of reference for determining the relative value of the drugs tested. For unless it can be demonstrated that prospective morphine substitutes have definite advantages over morphine, it seems unwise to allow their distribution, thereby complicating further the already difficult problem of narcotic control.

The use of a control (isotonic sodium chloride solution) enables the investigator to determine how much of the analgesic power and side action liability of the drugs tested is attributable to the action of the drugs and how much to the psychologic effect of the injection per se.

We employed morphine as the standard in the study of analgesia and side effects; the sodium chloride solution was used only in the appraisal of side effects. We are now of the opinion that isotonic sodium chloride solution should also be used in the patients employed for the appraisal of analgesic potency.

5. *Rigid Criteria for the Determination of Analgesic Power.*—(*a*) The criteria for grading the extent of relief should be practical and well defined. We encountered two major difficulties here. The first was that of evaluating the effectiveness of the first few doses on the operative day in patients who had had general anesthesia. Even though these patients had regained consciousness before these doses were administered, they were still sufficiently drowsy so that their estimates of the effectiveness of these doses were plainly unreliable. Therefore, when postoperative patients are used as subjects, the collection of data should be delayed until the first postoperative day, at least fifteen hours after the operation has been completed, earlier doses of narcotics being disregarded.

Another difficulty arose from the use of sleep as a criterion of complete relief. Although the patient who is asleep clearly has no pain, this does not alter the proposition that our immediate goal is the appraisal of analgesic, not hypnotic, power. We were often confronted with the problem of estimating the extent of relief in patients who, after receiving a medicament, slept intermittently for periods of a half-hour or so and, between naps, told us that their pain had not diminished in the least. Therefore, sleep is not a reliable index of analgesic effectiveness, and we believe that, if a patient goes to sleep after medication, the observer should record the fact, awaken the patient 60 to 90 minutes after the

subcutaneous injection has been made, for then its effect should be maximal, and then grade the extent of relief according to the patient's statement at that time.

(*b*) The relative analgesic potency of the new drug should be determined in a definite range of the dose-effect curve for that drug and for the standard. We selected the AD 90 range for this purpose, but the AD 50, the range in which the steepest slope of the curve occurs, is probably a more sensitive range for comparison. There are obvious practical difficulties in the way of using the AD 50 in patients in pain.

(*c*) In order to insure the accuracy of the absolute values for analgesic potency (expressed in percentage of moderate to complete relief), from which the dose-effect curves are plotted, it is essential that each patient receive the same number of doses of a given drug, whether there is complete or no relief. According to our method, the number of doses of a given drug from which a patient got no relief was limited to two, whereupon another drug was substituted. But the number of doses of a given drug from which a patient got complete relief was limited only by the frequency with which that patient required medication during the first three postoperative days. Since all drugs were handled in this manner, our findings on the relative analgesic potency of the drugs were not altered in any way. However, this method does tend to give a falsely high absolute analgesic potency for all drugs studied.

6. *Determination of Side Action Potency on the Basis of Equivalent Analgesic Doses.*—The importance of this is obvious, but at the beginning of our investigation considerable effort was wasted in the course of study of the side action potency of several drugs because we had no accurate information about the equivalent analgesic doses of some of the drugs we were testing.

7. *Evaluation of Both Analgesic Power and Side Action Liability in the Same Subjects.*—A method such as ours, which employs postoperative patients for the appraisal of analgesic potency, unfortunately cannot conform to this ideal because of the uncertainty of the relationship of the drug injected to the side effects observed in postoperative patients. We were obliged, therefore, to use an entirely different group, i. e., normal subjects, for the study of side actions. It should be emphasized that the pattern of side actions obtained in healthy subjects without pain may be different from that in patients with pain. Perhaps patients with terminal cancer would provide a more suitable group of subjects for the study of both analgesic power and side action potency.

8. *Elimination of Patient Variability in the Response to Pain.*—Variability of patients with respect to age, sex, weight and operation are probably of less importance than psychologic variability. We have attempted to eliminate psychologic variability by the use of relatively large numbers of patients for the evaluation of each drug. Whether or not we have been successful is uncertain. A more satisfactory method is probably the one employed in the healthy subjects, i. e., giving each subject one dose of the control, one of the standard and one of each of the new drugs. In the future, as a compromise, we are planning on introducing a new drug between two doses of the control or one dose of the control between two doses of the new drug.

9. *Adequate Statistical Analysis of Data.*—The validity of conclusions about comparative drug effects depends not only on the objectivity and accuracy and quantity of the data but also on the adequate statistical analysis of those data. There are, to be sure, errors inherent in some types of data which limit the extent to which such analysis is valuable and justified. Some of these have been mentioned. In such instances, it is of the utmost importance that the investigator recognize these limitations and not impart false accuracy to the data by the application of statistical methods.

Our exposition of the problems, methods and general principles involved in the clinical evaluation of new narcotics does not pretend to have exhausted this field of inquiry. We have tried to systematize soundly and practically a reasonable approach to problems encountered here. We hope, too, that other investigators in this complex field will set forth their ideas on these problems. It is clear that the method presented here is applicable to the study of pain-relieving drugs in general and is not limited to the narcotics. Our ultimate goal is the systematization of methods for evaluating these drugs in terms that will make possible accurate comparisons in different clinics.

(To Be Continued)

Council on Physical Medicine and Rehabilitation

REPORT OF THE COUNCIL

The Council on Physical Medicine and Rehabilitation has authorized publication of the following report.

HOWARD A. CARTER, *Secretary.*

TELEX HEARING AID, MODEL 1700 ACCEPTABLE

Manufacturer: Telex, Inc., Telex Park, Minneapolis 1.

The Telex Model 1700 Hearing Aid contains microphone, amplifier, batteries and controls in a rectangular plastic case with heavily rounded edges. The A-battery is of the two cell type, and the B-battery of 30 volts; both are of the zinc-carbon type.

The outside dimensions of the case excluding the clothing clip were 130 by 60 by 21 mm. (5⅛ by 2⅜ by ¾ inches). The weight with receiver cord, receiver and batteries is 208 Gm. (7¼ ounces).

Telex Hearing Aid, Model 1700

A wheel-type "on-off" switch with volume control is located at one of the upper corners. A lever-type "tone discriminator" is at the other upper corner and gives a choice between low-tone suppression and normal. A magnetic receiver is attached.

A special feature of this instrument is the "telemeter." Its two positions offer a choice between high battery drain (for maximum power) and a low drain for reduced volume output and longer battery life. The telemeter is set by turning a small screw in the back of the case.

The adjustment is normally made by the dealer to whom the company provides a suitable small screw driver. The battery life with full drain is estimated at 100 hours and with low drain at 240 hours. The manufacturer claims that the battery drain is as follows: "A"—60 milliamperes at 1.25 volts; "B"—0.80 milliamperes at 30 volts (full) and 0.40 milliamperes at 30 volts (low).

Evidence of sturdy construction and satisfactory performance was obtained from a laboratory acceptable to the Council.

The Council on Physical Medicine and Rehabilitation voted to include the Telex Hearing Aid, Model 1700, in its list of accepted devices.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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SATURDAY, DECEMBER 10, 1949

DR. MORRIS FISHBEIN RETIRES AS EDITOR OF THE JOURNAL

On December 1 Dr. Morris Fishbein retired as Editor of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, after almost thirty-seven years of outstanding service. His ability to organize, his willingness to work and his accomplishments long will be remembered by those who were associated with THE JOURNAL and other medical activities. Time after time he demonstrated the breadth of his knowledge and the keenness of his judgment. Time after time he demonstrated the ease with which he could summarize complex problems and introduce solutions. Words alone cannot express how much Dr. Fishbein has contributed to the affairs of the American Medical Association and to medical literature.

As a prolific writer, he is held in high esteem. As author of twenty-one books and editor of nine others, he is widely known and quoted in medical and literary circles. As a speaker, his convincing delivery, his broad knowledge and his humor cause him to be in constant demand.

As Editor of THE JOURNAL and other American Medical Association publications Dr. Fishbein was recognized as preeminent. Those who never knew him in person will honor him for his contributions to health and for his interest in humanity in general. As Dr. Fishbein follows his interests in other ventures, he carries with him the best wishes of his many friends.

EXOPHTHALMOS AND LOCALIZED MYXEDEMA

The phenomenon of paradoxic, chronic progressive exophthalmos may develop spontaneously or after a thyroidectomy. Thyrotoxicosis apparently does not play an essential part in the production of this type of exophthalmos. In most instances this severe so-called malignant exophthalmos develops after surgical removal of a toxic thyroid gland. The cause of this condition has been shown recently to be the excessive production of the thyroid-stimulating hormone elaborated by the anterior lobe of the pituitary or the lack of its antagonist, thyroxin. Schockaert, in 1931, and Loeb and his associates, in 1932, demonstrated in young guinea pigs the etiologic role of extracts of the anterior pituitary lobe in the production of exophthalmos. Smelser found that injection of the anterior pituitary extract into guinea pigs for three to nine weeks resulted in loss of weight and intense stimulation of the thyroid. Of the 26 guinea pigs thus treated, only 3 showed slight indication of exophthalmos. In another series of 26 guinea pigs, the thyroid and the left cervical sympathetic ganglions were removed and the same amount of anterior pituitary was injected daily. Definite, and in some instances extreme, exophthalmos developed in all but 3. Exophthalmos cannot be produced by the administration of thyroxin or desiccated thyroid in either animals or human beings. Thyroxin appears to offer specific protection against exophthalmos in rabbits, guinea pigs and probably human beings. It appears, therefore, that chronic progressive or malignant exophthalmos is essentially of pituitary origin.

Curtis and his associates [1] call attention to the fact that localized myxedema may occur in the presence of toxic diffuse goiter and that, like the progressive exophthalmos, it often follows surgical removal of a thyrotoxic gland. The development, progress and duration of localized myxedema simulates the course of progressive exophthalmos and suggests that the two conditions are allied manifestations of the same abnormality. Rawson [2] demonstrated that in toxic diffuse goiter the pituitary overacts with regard to the secretion of thyroid-stimulating hormone. In toxic diffuse goiter not characterized by progressive exophthalmos, the thyroid-stimulating hormone is inactivated, but in ophthalmopathic toxic diffuse goiter either a large proportion of the thyroid cells has been surgically removed or the cells cannot rise to the stimulus, and hence most of the thyroid-stimulating hormone remains active.

The changes produced in the orbit by the thyroid-stimulating hormone represent an actual increase in

1. Curtis, A. C.; Cawley, E. P., and Johnwick, E. B.: Association of Progressive (Malignant) Exophthalmos and Localized Myxedema, Arch. Dermat. & Syph. **60**: 318 (Sept.) 1949.

2. Rawson, R. W.; Sterne, G. D., and Aub, J. C.: Physiological Reactions of the Thyroid-Stimulating Hormone of the Pituitary: I. Its Inactivation by Exposure to Thyroid Tissue in Vitro, Endocrinology **30**: 240 (Feb.) 1942. Rawson, R. W.; Graham, R. M., and Riddell, C. B.: Physiological Reactions of the Thyroid-Stimulating Hormone of the Pituitary: II. The Effect of Normal and Pathological Human Thyroid Tissues on the Activity of the Thyroid-Stimulating Hormone, Ann. Int. Med. **19**: 405 (Sept.) 1943.

volume of the retrobulbar structures, due to edema and cellular infiltration. The weakness of the extrinsic ocular muscles, caused by edema and cellular infiltration, and the pressure exerted by the swollen retrobulbar contents lead to anterior displacement of the globe. The thyroid-stimulating hormone may well be the fundamental factor in the production of localized myxedema. These lesions have the appearance of oval, indurated, yellowish brown plaques, sometimes as large and thick as a man's hand. They are usually bilateral and limited to the lower anterolateral surface of the legs. The microscopic features of localized myxedema are edema, homogenization, fraying and splintering of the dermal connective tissue elements. Later variable amounts of mucin develop in the thickened cutis. Nodular infiltrations occurring on the face, arms, back and scrotum have been described in the literature under the same title. Treatment with desiccated thyroid does not produce an observable effect on these lesions. They may, however, show evidence of spontaneous regression after a few months or years, thus paralleling the usual course of progressive exophthalmos.

The thyroid-stimulating hormone is known to be a potent factor in the formation of edema. Its antagonist, thyroxin, possesses diuretic and dehydrating properties. The edema-producing quality of active thyroid-stimulating hormone probably contributes much to the evolution of the progressive exophthalmos. It may have the same effect in initiating localized myxedema. The clinical course of both localized myxedema and progressive exophthalmos is practically identical. The onset may be simultaneous. Both appear more often after thyroidectomy for toxic diffuse goiter. Both persist for months or years, but their activity is definitely self limited.

Administration of thyroid extract frequently fails to give impressive results in either progressive exophthalmos or localized myxedema. Thiouracil, which interferes with the synthesis of thyroxin by the thyroid, produces a sort of medical thyroidectomy and therefore is not of value in the treatment. Irradiation of the pituitary holds some promise when diffuse toxic goiter is complicated by progressive exophthalmos or localized myxedema.

It is important to differentiate between the thyrotoxic and the thyrotropic, or pituitary, variety of exophthalmos. Thyroidectomy should be avoided in patients with toxic diffuse goiter and eye changes suggestive of progression. The same contraindication is valid for localized myxedema.

Curtis and his co-workers found the two conditions associated in 3 of the 4 cases they studied and in 7 other reported cases. They express the opinion that if all patients with progressive exophthalmos were examined for localized myxedema, or the reverse, an ever increasing number of persons with these disorders concurrently would be observed.

Current Comment

CLAIMS FOR COLD CURES CRITICIZED BY COUNCIL ON PHARMACY AND CHEMISTRY

The Council on Pharmacy and Chemistry at a recent meeting warned against the indiscriminate use of antihistaminic substances which are now being promoted for the prevention of colds and even for the treatment of those suffering from colds. The Council, while recognizing that data have been accumulated relative to such uses, is not convinced that they are sufficient to warrant the positive statements that are being made. The Council warns that instances have been reported of users of these drugs becoming drowsy and even falling asleep while at work and, in occasional cases, while driving cars or operating machinery. A review of the present status of these products will be prepared so that physicians who prescribe the drugs may be aware of their possibilities. In the meantime the Council declares that experience with these substances is insufficient to permit knowledge of whether they are harmless when used over long periods of time. Furthermore, the amounts taken in persistent colds may exceed what has been established as normally safe.

SALIVARY LACTOBACILLI AND DENTAL CARIES

Much of the current theory as to the cause and control of dental caries is based on the assumption that the salivary Lactobacillus count is a dependable index to the tendency of persons to have tooth decay within the near future. Statistical confirmation of this assumption was sought by Boyd [1] and his associates of the Department of Pediatrics, University of Iowa. The Lactobacillus counts of 64 teen aged girls were compared with the progress of individual tooth decay over a period of thirty months. Eleven of these girls did not reveal advance of caries during this period. In these 11 the Lactobacillus counts varied from 30,000 to 360,000, an average of 92,500 per cubic centimeter of saliva. A second group, 15 girls, had an average of 9 to 10 decayed, missing or filled teeth during the same period. In this group the Lactobacillus counts varied from 35,000 to 720,000, an average of 112,000 per cubic centimeter. A third group of girls had an average of only five new lesions during the observation period. In this group the salivary counts varied from 30,000 to 720,000, an average of 104,500 lactobacilli per cubic centimeter. The average Lactobacillus count tended to parallel the rate of progress of caries when whole groups were compared. A great inconsistency, however, is seen in comparing the count and rate of caries progression for individual subjects. Equally low and equally high counts were recorded for individual subjects regardless of their subsequent caries histories. In this experiment an excessive number of salivary lactobacilli apparently was not the essential causative factor in tooth decay.

1. Boyd, J. D.; Cheyne, V. D., and Wessels, K. E.: Proc. Soc. Exper. Biol. & Med. 71: 535 (Aug.) 1949.

MULTIPHASIC SCREENING

Until recently mass testing of the population has been limited to roentgenographic examination of the chest for tuberculosis, serologic tests for syphilis and investigation of nutritional deficiencies. Chapman [1] suggests that these tests be combined with other practical tests to form "multiphasic screening." The combination of various tests would be economical and efficient for identifying cases that otherwise would not be found. The method would be particularly useful, it is claimed, in the control of chronic diseases, which are becoming progressively important because of the steady increase in the age of the population. Basing his figures on national estimates, Chapman believes that a screening examination of 1,000 apparently well persons over the age of 15 for syphilis, diabetes, glaucoma, anemia, tuberculosis, obesity, visual defects, hearing loss, hypertension and heart disease would result in the finding of 976 instances of these diseases. Some of the 1,000 persons screened probably would have two or more of these diseases or conditions, whereas others would have none. The distribution could be expected to be as follows: There would be 48 persons with syphilis, 22 with diabetes, 20 with glaucoma, 75 with anemia and 18 or more with tuberculosis; 200 would be obese, 266 would have visual defects, 250 would have a partial hearing loss, hypertension would be present in 38 and at least 39 would have heart disease. The objective of a multiphasic screening program would be referral of more persons to physicians for diagnosis and treatment at an earlier stage of their disease. Such a program would reduce the cost of chronic illness and would reduce human misery.

TREATMENT OF ACUTE LEUKEMIA

The treatment of patients with acute leukemia has long been associated with disheartenment and disillusionment. The many measures which have been used for the chronic types of the disease are disappointingly ineffective against the acute form of the disease. Even total replacement of the blood in the circulatory system, which has been made possible by more recently developed technics, produces so little effect that it does not seem worth while. Any report of remissions for even as short a period as four months should be carefully studied, because it represents some accomplishment and because further studies may be suggested by these results which might produce more dramatic responses. Seldom does an acute phase of the disease spontaneously become chronic. Such a phenomenon is so rare that it has little therapeutic significance. Stickney and his co-workers have reported experiences in the treatment of acute leukemia with antagonists of folic acid.[1] This was based on the observations of Little and his associates and of Higgins and Woods that several antagonists to folic acid, notably aminopterin, had a definite inhibiting effect on the growth of certain types of malignant neoplasms in chicks and mice. Over a period of two months Stickney's team treated 21 children and 33 adults, victims of acute leukemia, with folic acid antagonists, usually aminopterin. The diagnosis was determined by studies of the blood and the bone marrow. Doses of 1 mg. of aminopterin daily were administered, either orally or intramuscularly, until the patient showed toxic symptoms. Complications such as severe anemia or hemorrhage sometimes had to be offset with transfusions. When coincident infection occurred, antibiotics were administered. In patients with a favorable response to the treatment the immaturity of the bone marrow decreased but never returned completely to normal. The peripheral blood picture, on the other hand, did at times become normal, and this included the erythrocytes, hemoglobin and thrombocytes. At the peak of improvement megaloblasts were sometimes seen in the marrow smears and the peripheral blood. There was also in favorable cases general clinical improvement, with decrease in the size of the spleen and lymph nodes, decrease of pain and swelling in leukemic arthritis and roentgenographic evidence of beneficial changes in the bone. The treatment sometimes produced complete remissions lasting as long as four months, but all living patients are suffering from relapses. Analogy with radiation treatment in patients with chronic leukemia would lead one to suspect that the further administration of folic acid antagonists would probably be futile. Notwithstanding the discouraging end results of treatment, these observations offer a more optimistic outlook than any resulting so far from study of other therapeutic agents.

1. Chapman, A. L.: The Concept of Multiphasic Screening, Pub. Health Rep. **64**: 1311 (Oct. 21) 1949.
1. Stickney, J. M.; Mills, S. D.; Hagedorn, F. B., and Cooper, T.: Proc. Staff Meet., Mayo Clin. **24**: 525 (Oct. 12) 1949.

PREGNANCY AND TOOTH DECAY

Statistical data on a large number of pregnant and nonpregnant women of different age groups led Day and Shourie [1] to conclude that caries susceptibility does not increase as a result of childbearing. From similar evidence Ziskin and Hotelling [2] concluded that the factors operating during pregnancy actually prevent tooth decay. Experimental test of these conclusions is reported by Granados [3] and his associates of the Polytechnic Institute, Copenhagen, Denmark. The Danish biologists maintained newly weaned female hamsters for three and a half months on a suboptimal diet, consisting of finely ground yellow corn, sucrose, cornstarch, powdered whole milk, salt mixture and vitamins. At the end of fifty-six days 14 female hamsters were successfully mated, while 13 others were set aside as nonpregnant controls. At the end of three and a half months all female hamsters were killed and the carious lesions scored. In the pregnant group the average number of carious molars was 8.0, while there was an average of 8.5 in the nonpregnant group. The average number of individual carious lesions was 11.5 and 10.8, respectively. From this evidence it was concluded that, within the limits of the statistical error, pregnancy did not influence caries activity in this experiment.

1. Day, C. D. M., and Shourie, K. L.: Indian J. M. Research **35**: 101 (April) 1947.
2. Ziskin, D. E., and Hotelling, H.: J. Dent. Research **16**: 507 (Dec.) 1937.
3. Granados, H.; Glavind, J., and Dam, H.: Odontologisk Tidskrift **56**: 388, 1948; Proc. Soc. Exper. Biol. & Med. **71**: 279 (June) 1949.

ORGANIZATION SECTION

Official Notes

STATEMENT BY THE BOARD OF TRUSTEES

Dr. Austin Smith Appointed Editor of The Journal

On December 1 Dr. Morris Fishbein retired as Editor of THE JOURNAL of the American Medical Association. Dr. Austin Smith was appointed by the Board of Trustees as Editor to succeed Dr. Fishbein.

Dr. Smith becomes Editor with a background of training and experience particularly fitted for this position. A graduate of Queen's University Faculty of Medicine, Kingston, Ontario, Canada, he has the graduate and postgraduate degrees, M.D., C.M. and M.Sc. (Med.). As an undergraduate student he was associated actively with teaching and research. When he graduated he turned to additional training in clinical medicine and to further research and teaching appointments. Since graduation he has held teaching positions at three medical schools, and he still holds the title of Professorial Lecturer in the Department of Pharmacology, University of Chicago. His memberships in research organizations testify to his interest in and knowledge of the prevention of illness and the treatment of those who are sick.

Dr. Smith has been associated with the headquarters office of the American Medical Association since February 1940. As Secretary of the Council on Pharmacy and Chemistry and Director of the Division of Therapy and Research—of which the Council is a part—he has had a unique opportunity to observe modern medical problems. As an active participant in administrative committees at American Medical Association headquarters he has seen and helped solve many of the problems today confronting the Association. Since February 1949, Dr. Smith has been Assistant Editor of THE JOURNAL in preparation for his present assignment. Through his many activities the Editor has become well known in medical, pharmacal and educational circles and particularly to the drug and similar industries. He also is known for the several books and many articles that he has written on medical topics. As a speaker, especially before groups raising funds for research, he has been in demand.

On Dr. Fishbein's retirement the Board appointed as Editor of *Hygeia* Dr. W. W. Bauer, Director of the American Medical Association Bureau of Health Education and formerly Associate Editor of *Hygeia*. Dr. Richard Plunkett will serve as managing editor of the special journals of the American Medical Association and as editor of Standard Nomenclature of Disease and Standard Nomenclature of Operations.

Dr. Smith, as Editor of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, will be responsible to the Board of Trustees for the administration of all editorial activities associated with the scientific publications of the American Medical Association. Included, in addition to THE JOURNAL offices, will be the departments for the Library, Quarterly Cumulative Index Medicus, Standard Nomenclature of Disease and Operations and special scientific journals (nine at this time). In addition to appointments normally held by the Editor, Dr. Smith will be, as was his predecessor, Chairman of the Advertising Committee of the American Medical Association and will serve in other capacities to which he may be appointed by the Board of Trustees.

BOARD OF TRUSTEES,
LOUIS H. BAUER, Chairman.

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Washington Letter

(From a Special Correspondent)

Dec. 5, 1949.

U. S. Buys Cortisone for Nonfederal Research Projects

The National Institutes of Health, which is the research arm of U. S. Public Health Service, has disclosed that up to December 1 it had subsidized eight research projects in six nongovernmental institutions to encourage cortisone investigations. Recipients were: St. Louis University School of Medicine, $4,000; Johns Hopkins University, $3,000; Columbia University (2 projects), $3,600; University of Pennsylvania (2 projects), $1,400; Boston University, $1,200, and Wisconsin General Hospital, $1,200. The total of $14,400 has been expended from a special fund derived from the National Institutes of Health budgets for heart, cancer and general medical research. All the projects previously had been approved for cortisone allocations by the Keefer Committee.

John M. Gooch Named to Veterans Administration Pharmacy Post

The Veterans Administration has announced the appointment of John M. Gooch as chief of the technical section in the pharmacy division, Department of Medicine and Surgery. He succeeds W. C. Anderson, who resigned to take postgraduate study at the School of Hygiene and Public Health, Johns Hopkins University. Mr. Gooch formerly was chief pharmacist at Wadsworth Veterans Administration Hospital, Los Angeles. The technical section reviews and makes recommendations on stocking of new drugs, keeps Veterans Administration hospital pharmacists currently informed on pharmaceutical developments and performs liaison duties with the drug industry and other government agencies.

Number of Hospitalized Veterans Increasing

The statistical summary of Veterans Administration activities as of October 31 reveals that the number of hospitalized veterans is increasing. On the forementioned date, the figure was 109,378, an increase of 1,117 over the September 30 total and a new high for 1949. Of the total, 97,457 were in Veterans Administration institutions and the remainder in other governmental or private hospitals. The number of prospective patients awaiting admission, as of October 31, was 19,717, only 50 of whom had service-connected illness or injury.

At the end of October, construction on 62 hospitals was in progress. A total of $4,014,292 had been approved for payment under the recently enacted law on housing aid for paraplegic patients.

U. S. Bureaus Compete for High-Paying Research Posts

The U. S. Public Health Service, Department of Agriculture, National Bureau of Standards and other federal agencies are vying with one another in attempts to obtain their full share of high-paying positions, particularly in the medical and biologic sciences, which Congress established under Civil Service last October. A total of only 400 of these professional positions, with salaries ranging from $11,200 to $14,000, were created, with the Civil Service Commission having authority to decide how many of them shall be filled by research scientists.

Birth Rate 24.1 for First Nine Months of Year

The National Office of Vital Statistics estimates there were 2,669,000 registered births in the first nine months of 1949. This would make the rate, on an annual basis, 24.1 per 1,000 population, excluding the armed forces overseas. The corresponding rate in 1948 was 24.2, which was the second highest January-September rate in more than 25 years.

GOVERNMENT SERVICES

ARMY

ARMY INTERNSHIP APPOINTMENTS

One hundred and ninety senior medical students have been appointed to Army internships beginning July 1, 1950, Major General R. W. Bliss, the Surgeon General, has announced. They represent the selections from 1,014 candidates who applied for both Army and Air Force internships. Sixty-four of the 71 approved medical schools in the country are represented, and 96 per cent of the selectees are former service men. Sixty-one of the successful candidates are former noncommissioned technicians and specialists. One hundred and one of them are former Army commissioned personnel, including three former lieutenant colonels, 20 majors, 35 captains, 35 first lieutenants and eight second lieutenants. On graduation from medical school, each of them will be commissioned a first lieutenant in the Army Medical Corps Reserve, called to active duty and assigned for internship to one of the ten Army general hospitals which are approved for intern training.

PERSONAL

Col. Wesley C. Cox (MC), commanding officer, Industrial Hygiene Laboratory, Army Chemical Center, Maryland, will represent the U. S. Army and the American Association of Industrial Physicians and Surgeons at the First Inter-American Conference on Industrial Medicine. The conference will be held in Buenos Aires December 1-15 under the auspices of the Argentine Ministry of Labor, the Argentine Ministry of Health, the University of Argentina and the Permanent International Commission on Workers' Medicine. Representatives of eighteen western hemisphere nations and six European countries will attend.

Lieut. Col. William D. Tigertt (MC) has been appointed assistant commandant of the Research and Graduate School at the Army Medical Center, Washington, D. C. During the recent war he served as commanding officer of the 26th Medical Laboratory, Southwest Pacific, and was awarded the Bronze Star for action during the battle of Manila.

NAVY

EXAMINATIONS FOR APPOINTMENT IN REGULAR MEDICAL CORPS

Examinations for the selection of candidates for appointment to the grade of lieutenant (junior grade) in the Medical Corps of the Navy will be conducted at all Naval hospitals in the United States Jan. 16-20, 1950.

Graduates of approved medical schools in the United States or Canada who have completed intern training in accredited hospitals or who will complete such training within four months of the date of the examination, and who are physically and otherwise qualified, may be examined for these appointments.

Candidates will be required to appear before boards of medical examiners and supervisory Naval examining boards at the Naval hospital nearest their place of residence to demonstrate their physical and professional qualifications. They must be less than 32 years of age at the time of appointment. Following approval by the President of the United States and confirmation by the Senate, selected candidates will be issued appointment and orders assigning them to active Naval Service.

As a result of authorized additional compensation, a lieutenant (junior grade) in the Navy Medical Corps receives $100 a month in addition to the usual pay and allowances of that rank.

Information concerning the form and procedure of application may be obtained from the nearest Naval officer procurement office or from the Bureau of Medicine and Surgery, Navy Department, Washington 25, D. C. (Attention: Code-3424).

DUTY UNDER INSTRUCTION

The following medical officers have been nominated for duty under instruction in the Graduate Medical Training Program:

Comdr. William H. New, to instruction at the Armed Forces Staff College, Norfolk, Va.

Lieut. Comdr. William W. Henderson, to a residency in surgery, Naval Hospital, Long Beach, Calif.

Lieut. Irvin H. Mattick, to a residency in children's orthopedics, Carrie Tingley Hospital, Hot Springs, N. Mex.

Lieut. Mervyn J. Sullivan, to a residency in obstetrics and gynecology, Naval Hospital, San Diego, Calif.

Lieut. George H. Tarr Jr., to a residency in internal medicine, Naval Hospital, Great Lakes, Ill.

Lieut. (jg) Morton Johan, to a residency in psychiatry, Naval Hospital, Bethesda, Md.

Lieut. (jg) Julius H. Spence, to a residency in anesthesiology, Naval Hospital, Oakland, Calif.

Lieut. (jg) Ernest A. Blakey, to a residency in surgery, Naval Hospital, Oakland, Calif.

Lieut. (jg) John J. Flahive, to a residency in internal medicine, Naval Hospital, St. Albans, L. I., N. Y.

The following officers were nominated for duty under instruction in aviation medicine at the Naval School of Aviation Medicine and Research, Pensacola, Fla.:

Comdr. John F. Smith.	Lieut. (jg) Billy D. McKneely.
Lieut. James A. Brimson.	Lieut. (jg) Raymond W. Lawrence.
Lieut. (jg) Jesse A. Bowers.	Lieut. (jg) David E. Loveman.
Lieut. (jg) Irby J. Hurst Jr.	Lieut. (jg) Daniel F. Milam.

RECALL TO ACTIVE DUTY

The following medical officers are being recalled to active duty at their own request:

Capt. John J. Goller, U.S.N.R., Staten Island, N. Y.
Comdr. John G. Davis, U.S.N. (Ret.), Indianol, Iowa.
Comdr. John F. Smith, U.S.N.R., Chicago.
Comdr. Frederick M. Stafford, U.S.N.R., Sherman, Texas.
Comdr. Charles Bunch, U.S.N., Charlotte, N. C.
Lieut. Comdr. Donald M. Ross, U.S.N.R., Poughkeepsie, N. Y.
Lieut. Comdr. Joseph J. Connor, U.S.N.R., Denver.
Lieut. Wm. R. Walsh, U.S.N.R., New York.
Lieut. (jg) Oliver Babcock, U.S.N.R., Spirit Lake, Iowa.
Lieut. (jg) William H. Rendleman, U.S.N.R., Davenport, Iowa.
Lieut. (jg) William J. Dinnen Jr., U.S.N.R., Detroit.
Lieut. Sidney H. Cohen, U.S.N.R., Stuyverston Town, N. Y.

NEW REGULAR OFFICERS

The following reserve medical officers on active duty have been appointed to the regular Navy Medical Corps: Lieut. (jg) John J. Flahive, at the Naval Hospital, St. Albans, L. I., N. Y., and Lieut. (jg) William C. Sharp Jr., at the Naval Hospital, Philadelphia, in a residency in pathology; Lieut. (jg) Merrill A. Bender of Mentor-on-the-Lake, Ohio, and Lieut. (jg) Guido R. Gianfranceschi of Watertown, N. Y.

AIR FORCE

THE SURGEON GENERAL RETIRES

Major Gen. Malcolm C. Grow, Surgeon General of the U. S. Air Force, retired November 30, after more than 31 years of military medical service. Major Gen. Harry G. Armstrong, Deputy Surgeon General, will be the new Surgeon General, and Brig. Gen. Dan Clark Ogle, special assistant to the Surgeon General, will become Deputy Surgeon General. Gen. Hoyt S. Vandenberg, chief of staff (USAF) on the previous day presented General Grow an oak leaf cluster to the Distinguished Service Medal. He was cited for his exceptionally meritorious service in promoting the study of aeromedicine, pioneering in the development of air-borne medical equipment and initiating plans adopted by all the medical services for future deployment of mobilized medical personnel. Prior to accepting a commission in the U. S. Army Medical Reserve Corps in 1917, General Grow had served nearly two years in the Russian Army, receiving three decorations, including the Cross of St. Stanislaus with Crossed Sabers, one of the highest decorations given under the Czar.

General Grow served as surgeon with the 45th Artillery and the 42nd Infantry Division in France during World War I, and as surgeon of the Eighth Air Force and later the U. S. Strategic Air Forces in the European Theater during World War II. He and General Armstrong, together, founded the Aero Medical Laboratory at Wright-Patterson Air Force Base, Dayton, Ohio, in 1935, which has developed most of the protective flight clothing now in use. They are co-authors of "Fit to Fly."

General Grow is credited with much of the development of body armor, which saved many lives among combat airmen in World War II. A graduate of Jefferson Medical College, Philadelphia, he is rated a flight surgeon, and is certified by the American Board of Preventive Medicine and Public Health.

AIR FORCE INTERNS

Fifty-four senior medical students have been selected for Air Force internships in military hospitals beginning July 1, 1950, according to an announcement by Major Gen. Malcolm C. Grow, the Surgeon General. The interns were selected from more than 400 applicants, representing seventy-one medical schools throughout the United States; the majority of them had served in the Air Force during the war. Interns selected are commissioned as first lieutenants in the Air Force Medical Service Reserve and serve on active duty for one year. At the completion of their internship, selected candidates will be offered commissions in the regular Air Force.

HOSPITAL COMMEMORATES FLIGHT NURSE

San Benito, Texas, recently dedicated a new hospital in memory of Lieut. Dolloy Vinsant, who lost her life during World War II. The Dolloy Vinsant Memorial Hospital was erected at a cost of nearly half a million dollars, most of which was donated by the people of that city and of the rural area which it serves.

Lieutenant Vinsant was born in San Benito in 1917 and was graduated from the Air Force School for Flight Nurses in 1942. She was killed in action on a flight over Germany, April 14, 1945.

PERSONAL

Col. Emmert C. Lentz is replacing Col. George B. Green as chief of the Physical Standards Division of the Air Force Medical Service, and Col. William F. Cook is replacing Brig. Gen. Schwichtenberg as director of Plans and Hospitalization of the U. S. Air Force Medical Service.

PUBLIC HEALTH SERVICE

EXAMINATION FOR PHYSIOLOGISTS

Competitive examinations for appointment of physiologists to the Regular Corps of the U. S. Public Health Service will be held Feb. 6-8, 1950 at a number of points throughout the United States. Applications must be received no later than January 2. Appointments will be made in the grades of assistant scientist (equivalent to Army rank of first lieutenant) and senior assistant scientist (equivalent to captain). Information may be obtained by writing to the Surgeon General, U. S. Public Health Service, Federal Security Agency, Washington 25, D. C. Attention: Division of Commissioned Officers.

FEDERAL FUNDS FOR RESEARCH

Public Health Service grants of $907,212 to aid laboratory and clinical research in nonfederal institutions were announced November 16 by the Federal Security Administrator. The awards were made by the National Cancer Institute to hospitals and universities in 21 states and the District of Columbia, on recommendation by the National Advisory Cancer Council and approval by the Surgeon General.

Grants totaling $358,109 to 20 nonfederal institutions in 13 states and the District of Columbia for support of heart research and for additional heart research laboratory facilities have been announced by the Federal Security Administrator. The grants were announced after approval by Surgeon General Leonard A. Scheele and recommendation by the National Advisory Heart Council. A total of $248,109 was made for 20 research investigations in 18 nonfederal institutions. The largest of these grants was $64,800 to Northwestern University, Chicago, for an investigation of rheumatic fever to be conducted by Dr. Alvin Coburn. A total of $110,000 was awarded to two nonfederal institutions to provide research laboratory facilities for the study of heart diseases. The largest grant, $100,000, went to the Oklahoma Research Foundation. A grant of $10,000 was made to Michael Reese Hospital, Chicago, for planning for the construction of a cardiovascular research institute.

SURVEY OF ANTHRAX IN INDUSTRY

Based on a recent epidemiostatistical survey of anthrax, the Industrial Hygiene Division of the Public Health Service has found that certain types of imported wool and animal hair are the most important source of anthrax infection in industry. The survey is the first part of an anthrax study which the Industrial Hygiene Division began in March of this year. The anthrax study is being made in cooperation with the state industrial hygiene units and industries in Pennsylvania, New York, New Jersey, Massachusetts and New Hampshire.

The second phase of the study will seek to narrow down the search to the specific types of raw products and the countries and areas of origin which are involved. Simultaneously, investigations will be undertaken on the development of effective methods for the disinfection of potentially infected wool. Ultimately, the division expects to be able to formulate recommendations for the control of industrial anthrax.

SMOKE ABATEMENT

National Smoke Abatement Week, which was observed beginning Sunday, October 30, was a step forward in public recognition of the ill effects of atmospheric pollution. The Surgeon General of the Public Health Service praised the efforts of the Smoke Prevention Association of America to arouse the interest of citizens in every community in this problem. He said, "There is now indisputable scientific evidence that contaminants in the air can cause acute effects on health. . . . The Public Health Service is concerned not only with the abatement of smoke but also with the control of fumes, gases,

particulate matter and other pollutants discharged by industrial plants and other sources into the atmosphere. . . . The over-all problem of atmospheric pollution is a long range one and will require much study by teams of scientists, in cooperation with civic organizations and other groups in every locality. We hope that through the medium of Smoke Abatement Week many groups may be prompted to take steps to help solve this problem." He said that the Public Health Service has received numerous requests from cities and states to study their air pollution problems and that plans are now being made for an expanded program.

FEDERAL FUNDS FOR WATER POLLUTION STUDIES

Federal grants totaling $891,487 have been made for water-pollution studies. To date, 45 states, the District of Columbia, Puerto Rico, the Virgin Islands, Hawaii and Alaska have received grants totaling $782,979. States which have not applied for grants, but for which a provisional allotment has been made, are: Arkansas, California and Virginia.

Grants totaling $72,400 have been made for special studies to be conducted by five interstate agencies—the Interstate Commission on the Potomac River Basin, the New England Interstate Water Pollution Control Commission, the Ohio River Valley Water Sanitation Commission, the Interstate Sanitation Commission (New York, New Jersey and Connecticut) and the Interstate Commission on the Delaware River Basin.

Grants totaling $36,108 have been made to the state departments of health of Massachusetts, Texas and Wisconsin for conducting special industrial waste studies which have sectional or national importance. An additional $31,400 has been provisionally allotted to three other special projects in Ohio, Washington State and Minnesota. The grants will not be made until the applications have been reviewed and received final approval by the Surgeon General.

PERSONAL

Dr. H. H. Schrenk has resigned as chief of the Environmental Investigations Branch of the Industrial Hygiene Division of the Public Health Service to become director of research of the Industrial Hygiene Foundation, Mellon Institute, Pittsburgh. His successor will be Dr. Lewis J. Cralley, who has been chief of the Cooperative Health Services Branch of the division.

SECRETARY OF DEFENSE

HEARINGS ON MEDICAL RESERVE PROBLEMS

A special task force has begun hearings on the civilian component problems of the armed forces medical services as a preliminary step in the Department of Defense's effort to correct deficiencies in the program. The hearings will be held in the Department of Defense, Washington, D. C., each Monday and Tuesday through December 27.

The task force, appointed recently by Charles P. Cooper, chairman of the Armed Forces Medical Advisory Committee, at the request of Secretary of Defense, will inquire into various phases of medical services reserve activities as they now function and will hear statements from military and professional organizations. The group has emphasized that it is interested in receiving pertinent comments and recommendations of any person or organization.

Chairman of the task force is Dr. William S. Middleton, dean, University of Wisconsin Medical School. Other members are Dr. Winchell M. Craig, Rochester, Minn.; Dr. W. Randolph Lovelace III, Albuquerque, N. Mex.; Dr. James B. Mason, Veterans Administration, and C. R. Raymond Wells, D.D.S., Brooklyn.

The findings will be transmitted about Jan. 1, 1950 to the Armed Forces Medical Advisory Committee, which in turn will recommend specific measures to the Secretary of Defense. Proposals involving changes will be coordinated with the recently established Civilian Components Policy Board of the Defense Department, which is responsive for the over-all program of reserve affairs, and with the Office of Medical Services. Communications should be directed to the task force chairman, care of Secretary of Defense, Room 3 E 989, The Pentagon, Washington, D. C.

MERGER OF MEDICAL JOURNALS

Consolidation of the professional medical publications of the armed forces into the *U. S. Armed Forces Medical Journal* and its supplement, the *Medical Technicians Bulletin of the U. S. Armed Forces*, was announced November 21 by Secretary of Defense Louis Johnson. The new monthly medical journal will replace the *Bulletin of the U. S. Army Medical Department* and the *U. S. Naval Medical Bulletin*. The Air Force, for which a separate medical department was created last July, has not had a similar journal.

General policies for the guidance of the publications will be established by Dr. Richard L. Meiling, director of medical services, with operations carried out through a new Armed Forces Medical Publications Agency, which has been assigned to the Navy's Bureau of Medicine and Surgery. Each of the three services will be represented on the editorial staff, with the Navy member serving as the first editor in chief. The journal will contain professional and scientific papers by physicians, dentists, nurses and other professional personnel, as well as administrative material on the Army, Navy and Air Force medical programs.

MISCELLANEOUS

DR. McCORMACK SUCCEEDS DR. SADUSK

Dr. James McCormack has been appointed executive director of the Committee on Medical Sciences of the Research and Development Board, Department of Defense, to succeed Dr. Joseph F. Sadusk Jr., who will join the clinical faculty, Stanford University School of Medicine, in addition to practicing medicine in that area. Dr. McCormack is on leave from the New York University College of Medicine, where he has been assistant dean and physician to the Bellevue School of Nursing. He has been deputy director of the committee since July 1948 and during the war was a technical aide in the Office of Scientific Research and Development. Dr. Sadusk, during the war, was executive officer of the U. S. Typhus Commission, which awarded him the Typhus Commission Medal; later he was associate medical director of the Prudential Insurance Company of America, and in 1946 he returned to Yale as assistant professor of medicine.

REPORT ON ISOTOPE DISTRIBUTION

More than 300 universities, hospitals and research laboratories in the United States are using isotopes produced by the Atomic Energy Commission for medical, biologic, industrial, agricultural and scientific research and medical diagnosis and treatment, the commission stated in a report published November 14. The report, "Isotopes—A Three-Year Summary of U. S. Distribution," is available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., for 45 cents.

The report summarizes the growth of the isotope distribution, outlines the various methods of isotope production and describes the typical ways in which isotopes are used in the United States and 21 foreign nations. Since the program was started, on Aug. 2, 1946, more than 7,000 shipments of radioisotopes have been made.

Medical News

(Physicians will confer a favor by sending for this department items of news of general interest: such as relate to society activities, new hospitals, education and public health. Programs should be received at least two weeks before the date of meeting.)

ALABAMA

Dr. Harris Awarded Medal.—Dr. Seale Harris, Birmingham, was awarded the research medal of the Southern Medical Association at its convention in Cincinnati November 14-15. He was cited for his original research in hyperinsulinism and for his work in the fields of nutrition, metabolism and diabetes mellitus. Dr. Harris received the Distinguished Service Medal of the American Medical Association last June for his work on hyperinsulinism.

CALIFORNIA

Licenses Restored.—The Board of Medical Examiners of the State of California at its meeting in Sacramento on October 17 restored California physician and surgeon certificates issued to Drs. Harry Cohn, Los Angeles; James A. Ramsay, Santa Monica, and Melvin A. Shade, Oakland. In addition, they were placed on probation for a period of five years under the following terms and conditions: that they do not apply for nor secure a federal narcotic permit nor prescribe or have narcotics in their possession; that they live up to and abide by all the laws of the United States and the state of California and that they report once each year to the board during the period of their probation.

Annual Ophthalmology and Otolaryngology Convention.—The nineteenth annual midwinter Clinical Convention in Ophthalmology and Otolaryngology will be held in Los Angeles, January 15-27, sponsored by the Research Study Club. Among the speakers will be Dr. Conrad Berens, director of the Ophthalmological Foundation of New York, and his associate Dr. Raymond E. Meek; Dr. Percy E. Ireland, head of the department of ophthalmology, University of Toronto, and his assistant professor, Dr. Joseph A. Sullivan. A course in surgery of the eye will be given by Dr. Meyer Wiener, in which the various operations for correction of ptosis and epicanthus, along with sliding grafts for the reconstruction of the upper and lower lids, will be discussed. Each applicant must be a member of his own local medical society in order to become eligible for attendance. The fee (clinical course $75, special course in surgery of the eye $50) should be sent to Pierre Viole, M.D., Treasurer, 1930 Wilshire Blvd., Los Angeles.

FLORIDA

Public Health Appointment.—Medical Director Knox E. Miller of the U. S. Public Health Service, now on terminal leave after thirty-six years of active duty with the service, has accepted the position as assistant to the state health officer. Formerly he was regional director of service activities in Region Eight at Dallas, Texas.

Personal.—Dr. Bricey M. Rhodes, Tallahassee, has been appointed to the State Board of Medical Examiners to succeed Dr. Howard G. Holland of Leesburg, whose term has expired. Dr. Rhodes is a past vice president of the Florida Medical Association and former director of the Florida Academy of Public Medicine.

ILLINOIS

Postgraduate Conference.—A postgraduate conference has been arranged for the Seventh Councilor District of the Illinois State Medical Society at the Frisina Hotel, Taylorville, December 15. After a luncheon the program will include the following speakers:

E. Lee Dorsett, St. Louis, Eclampsia.
George A. Hellmuth, Chicago, Newer Aspects of Cardiovascular Disease.
Harry A. Oberhelman, Chicago, Surgical Problems in Infancy and Childhood.
Franklin J. Corper, Chicago, Nephritis in Childhood.
Claude N. Lambert, Chicago, Principles of Fracture Treatment.
Edwin S. Hamilton, Kankakee, member, Board of Trustees, American Medical Association, What the Coordinating Committee is Doing.

The Seventh Councilor District covers the counties of Bond, Christian, Clay, Clinton, Effingham, Fayette, Macon, Marion, Moultrie, Piatt and Shelby.

Chicago

Cook County Hospital Residencies.—Cook County Hospital received approval for three years' training in gynecology and obstetrics at the meeting October 22 of the Council on Medical Education and Hospitals.

Clinical Heart Program.—The Clinical Section of the Chicago Heart Association will meet at the Chicago Medical School December 13 from 10 a. m. to 12 noon. Subjects under discussion will be Experimental Studies on the Mechanism of Production of the First Heart Sound, Renal Effects of Heart Disease, Studies of Hyaluronidase Skin Testing in Acute Rheumatic Fever and Ground Substance Diseases, and Diagnosis and Treatment of Congenital Malformations of the Aortic Arch.

Personals.—Dr. Frederick Hiller, associate professor of nervous and mental diseases of Northwestern University Medical School, has been named president of the German Medical Society of Chicago.——Dr. John R. Lindsay, professor of otolaryngology, at the University of Chicago Medical School, has been appointed a member of the Committee of Hearing of the National Research Council and has been awarded the Gold Key for service by the American Academy of Ophthalmology and Otolaryngology. Paul A. Weiss, Ph.D., professor of zoology, received the Honorary Degree of Doctor of Medicine, University of Frankfurt, August 27 and was elected vice president of the International Institute of Embryology on September 10.——The Presidential Medal of Merit of the Nicaraguan Government was presented to Dr. Max Thorek during the Fourteenth Annual Assembly of the United States Chapter, International College of Surgeons, recently in Atlantic City, N. J.

KANSAS

State Tuberculosis Survey.—The Division of Tuberculosis Control of the Kansas State Board of Health has a plan to eradicate tuberculosis in the state; a survey began September 19 in Cheyenne and Rawlins counties. Two mobile x-ray units are traveling in adjacent counties and will move eastward until the first two rows of counties across the state have been covered. They will then proceed up the third and fourth tiers of counties until the Nebraska border is reached. During the winter large urban areas will be covered. It is expected that the entire population can be screened in less than three years. The Kansas Tuberculosis Association will send a health educator into each county before the survey to assist communities with arrangements. Counties will not be surveyed without the invitation and approval of the local medical society or, where none exists, of the local health officer. The age limit for these examinations is being raised to 16 years. The 70 mm. film will be read within 72 hours by the Division of Tuberculosis Control film readers in Topeka. A report of the roentgenogram will be sent to the family doctor. Repeat roentgenograms will be made of those suspected of having tuberculosis. Subsequent roentgenograms will be made by the local physician or by whomever he chooses, and the cost will be borne by the patient. A third mobile unit will cover all state, public and private institutions of higher learning. The advantage of the new plan is its thoroughness and the short period of time necessary for complete coverage of the state.

KENTUCKY

Appointments to Faculty.—New appointees to the University of Louisville School of Medicine faculty are Dr. John P. Phillips, assistant professor of anesthesia and chairman of the Division of Anesthesia in Surgery, replacing Dr. Milton Davis Jr; Dr. Maurice M. Best Jr., as instructor in medicine, and Dr. Samuel J. Anderson, Louisville, as full time university physician with part time work as instructor in psychiatry.

Cardiac Research at Louisville.—The University of Louisville School of Medicine has been awarded grants totaling $29,400 for cardiac research, $20,000 of which is to be used for research on blood circulation and $9,400 for the study of the effect of dietary fats on hardening of the arteries. The grants are a part of a larger amount given to medical schools and research institutions over the nation by the National Heart Institute of the U. S. Public Health Service.

LOUISIANA

Portrait of Dr. Dupuy.—At recent ceremonies a portrait of the late Dr. Homer Dupuy, first professor of otolaryngology at the School of Medicine, was presented to the Louisiana State University School of Medicine, New Orleans, by his former colleagues. Dr. Dupuy was appointed professor of otolaryngology in 1931 and taught and directed the department until his death in 1936.

Pediatric Fellowships for General Practitioners.—The Division of Graduate Medicine and the department of pediatrics at Tulane University of Louisiana School of Medicine, New Orleans, have established plans for continuous training fellow-

ships in pediatrics to meet the needs of general practitioners from rural communities. Applicants should be less than 45 years of age and should have practiced and planned to continue practicing in communities of less than 10,000 population. The course of study will continue for not less than three months and will encompass clinical experience in all phases of infant and child health, active participation in the undergraduate and postgraduate teaching programs of the department of pediatrics and opportunity for pursuit of individual clinical or research interests on a part time basis. Appointments will be made on the basis of merit and need. The course will be highly individualized. Application may be made by any qualified person. Responsibility for arranging and paying for registration, tuition and living expenses during the period of fellowship rests with the individual applicant or his sponsoring agency. For information, address the Director of Graduate Medicine, Tulane Medical School, 1430 Tulane Avenue, New Orleans, La.

MINNESOTA

Dr. Myers Honored. — A plaque for distinguished service in tuberculosis control was presented to Dr. J. Arthur Myers, professor of internal medicine, preventive medicine and public health at the University of Minnesota, Minneapolis, at the annual Christmas Seal dinner of the Minnesota Public Health Association October 25. The award was made on the occasion of the publication of Dr. Myers' latest book "Invited and Conquered," a history of tuberculosis in Minnesota. Dr. Myers is a past president of the National Tuberculosis Association, Mississippi Valley Conference on Tuberculosis, Minnesota Public Health Association and the American College of Chest Physicians. He is editor in chief of the latter's publication, *Diseases of the Chest*, and a member of the editorial board of the *American Review of Tuberculosis*.

MISSOURI

Dr. Jostes Awarded Citation.—The Missouri Society for Crippled Children and Adults has awarded Dr. Frederick A. Jostes, St. Louis, a citation for devoted and distinguished service to the crippled children of Missouri. He was commended for having launched the State Crippled Children's Service in 1927 and for giving crippled children the first clinical service in rural communities. Dr. Jostes is assistant professor of orthopedic surgery at Washington University School of Medicine, St. Louis, and is on the boards of both the St. Louis and Missouri societies for crippled children.

Study Club Program.—The following programs for 1950 have been arranged by the General Practitioners Study Club, St. Louis.

Jan. 18, Adolph C. Lange, St. Louis, Ophthalmic Procedures for the General Practitioner. Film on Paranasal Sinusitis and Otoscopy in the Inflammations.
Feb. 15, William G. Klingberg, St. Louis, Common Anemias of Infancy and Childhood. Film on Treatment of the Major Neuralgias.
March 15, Robert Elman, St. Louis, Indications for Parenteral Fluids. Film on Arterial Blood Pressure.
April 19, William H. Masters, St. Louis, Conduction Analgesia and Anesthesia. Films on Anatomy of the Ear and Otitis Media in Pediatrics.

NEW JERSEY

Martland Lecture. — The Harrison S. Martland Lecture of the Essex County Pathological and Anatomical Society of Newark will be given December 14 at 6:30 p. m. at the Essex House in Newark. Dr. Hans Selye, professor and director of the Institute of Experimental Medicine and Surgery, University of Montreal, Canada, will speak on "The General Adaptation Syndrome and the Diseases of Adaptation."

NEW YORK

Open Eye Bank and Research Center.—The Buffalo Eye Bank and Research Laboratory in the University of Buffalo School of Medicine has been opened. The laboratory was made possible by the efforts of representatives of the Lions Clubs of Western New York and a committee of the Erie County Medical Society.

Society News.—Dr. Leslie A. Osborn, Buffalo, will address the Chenango County Medical Society on "Recognition and Management of Psychiatric Problems in General Practice" December 13 at 12:30 p. m. at the Norwich Club in Norwich. ——The Central New York Dermatological Society has elected the following officers for the coming year: Drs. Irving Swartz, Syracuse, president, and Armand U. Aquilino, Syracuse, secretary.——Dr. Bertrand E. Lowenstein will discuss "Endocrine Control of Dentition" at the monthly conference of the New York Institute of Clinical Oral Pathology, December 19 at the New York Academy of Medicine at 9 p. m.

New York City

Personals.—Dr. Neal J. Conan Jr., instructor in medicine at New York University College of Medicine, has become chairman of the department of internal medicine of the American University of Beirut, Syria, chartered by the University of the State of New York. He is a graduate of the Columbia University College of Physicians and Surgeons, 1934.

Allergy Society Award.—The New York Allergy Society announces a prize of $150 for the best essay by a student of a medical school in Greater New York City for the coming year on "Bronchial Asthma and Its Relation to Foci of Infection in the Upper Respiratory Tract." The essay should not exceed 15,000 words and should contain reference to clinical experience gained in the medical school or hospital; references to published work should be indicated in the bibliography, and the essay should be approved by the head of the department of medicine of the student's medical school. A report of original investigations in the fields of general allergy or of immunology, which the award committee deems meritorious, will be given consideration equal to that of essays on the designated topic. Essays must be sent to the Secretary of the New York Allergy Society, Dr. Frederick R. Brown, 39 West 55th Street, New York City prior to May 1, 1950.

PENNSYLVANIA

University Appointment.—Dr. Axel K. Olsen, Sayre, has resigned from the staff of the Guthrie Clinic and Robert Packer Hospital to become professor of neurosurgery at Hahnemann Medical School, Philadelphia. Dr. Olsen, a graduate of Northwestern University Medical School, Chicago, 1935, organized the department of neurosurgery in the hospital. Dr. Arthur B. King of the Lahey Clinic, Boston, will succeed Dr. Olsen at the hospital. He is a graduate of Johns Hopkins University School of Medicine, Baltimore, 1939.

Forty-One Years of Service to a Hospital.—Dr. Friend A. Cross, Scranton, chief of the Scranton State Hospital's ophthalmologic service, has resigned after 41 years of continuous service to the hospital. Dr. Cross will continue as a member of the consulting staff. He entered the hospital as an intern in 1907 and was then appointed associate staff member on the eye, ear, nose and throat service. He is a 1907 graduate of the Medico-Chirurgical College of Philadelphia, now a part of the University of Pennsylvania.

Philadelphia

Personal.—Richard H. Barnes, Ph.D., director of biochemical research, Sharp and Dohme, Inc., has been appointed to the newly created post of assistant director of research; in addition Dr. Barnes will continue to serve as director of biochemical research.

John Scott Award.—The John Scott Award of the City of Philadelphia has been awarded to Charles Glen King, Ph.D., professor of chemistry at Columbia University, New York, for work on the chemistry of vitamin C. The award, consisting of $1,000 and a medal, was presented to Dr. King at a meeting of the Pittsburgh section of the American Chemical Society.

SOUTH CAROLINA

Society Election.—The South Carolina Society of Ophthalmology and Otolaryngology at its recent annual meeting elected the following officers: Drs. W. McNeill Carpenter, Greenville, president; Joseph B. Workman Jr., Columbia, vice president, and Roderick MacDonald, Rock Hill, secretary.

Medical Dean Becomes President.—Dr. Kenneth M. Lynch, dean of the Medical College of the State of South Carolina, Charleston, has been given additional duties as president of the college. Dr. Lynch is a graduate of the University of Texas Medical Branch, Galveston, 1910. He is professor of pathology and chairman of the South Carolina Board of Health.

TENNESSEE

Unveil Portraits of Seven Presidents.—The Nashville Academy of Medicine held a special public meeting November 21, during which it unveiled portraits of six presidents and one president-elect of the American Medical Association who were members of the local organization. The Nashville Academy is the oldest medical organization west of the Allegheny Mountains, having been instituted in 1821. The six American Medical Association presidents whose portraits were unveiled were Dr. Paul F. Eve, eleventh president, who served in 1867; Dr. William T. Briggs, forty-third president, in 1891; Dr. John A.

Witherspoon, sixty-fifth president, in 1913; Dr. William D. Haggard, seventy-eighth president, in 1925, and Dr. Harrison H. Shoulders, the hundredth president, who served his term of office in 1946. Dr. Olin West, a member of the academy, was president-elect of the American Medical Association in 1946, but was unable to serve as president because of ill health.

VIRGINIA

Society Election.—The Virginia Obstetrical and Gynecological Society, meeting in Old Point Comfort October 12, chose Dr. John M. Nokes, Charlottesville, president-elect; Dr. Chester D. Bradley, Newport News, is secretary-treasurer.

Memorial to Dr. Johnston.—The auditorium of the Medical College of Virginia Hospital Division was dedicated November 14 to the memory of Dr. George Ben Johnston, one of the early leaders of the college. In 1893 he established the Hospital of the Medical College of Virginia, afterward the Old Dominion Hospital. He was instrumental in the organization of the Medical College of Virginia, Richmond, when it merged with the University College of Medicine in 1913. He died in 1916.

First Robins Lecture.—Dr. Robert A. Kimbrough, professor and chairman, department of obstetrics and gynecology, Graduate School of Medicine, University of Pennsylvania, Philadelphia, gave the first Charles R. Robins Memorial Lecture at the Medical College of Virginia, November 11. Dr. Kimbrough discussed "Carcinoma of the Endometrium." The new lecture was established at the college by Dr. Spotswood Robins and Charles R. Robins Jr. in memory of their father, who was a founder and for 30 years president of Stuart Circle Hospital in Richmond.

Mass Test for Chronic Diseases.—The Richmond City Health Department, the U. S. Public Health Service and local agencies will conduct a mass testing program for seven chronic diseases beginning January 1. Residents will be tested free for diabetes, heart disease, high blood pressure, pulmonary tuberculosis, anemia, obesity and syphilis. The information will be turned over to the family physician. The program is financed by a grant of $40,000 from the U. S. Public Health Service, to be matched in services and equipment from the city health department.

WASHINGTON

Symposium on Rheumatic Fever.—The Washington State Heart Association is holding the first of its annual symposiums January 13-14 at the Washington University School of Medicine auditorium in Seattle. The entire session will be devoted to the various aspects of rheumatic fever. The speakers will be: Drs. Benedict F. Massell, Boston; Charles H. Rammelkamp, Cleveland, and John J. Sampson, San Francisco.

Faculty Appointments.—Drs. Clement A. Finch and William M. Kirby have been appointed associate professors in the department of medicine, Washington University School of Medicine, Seattle. Dr. Finch is a former member of the faculty of Harvard Medical School and Peter Bent Brigham Hospital in Boston. He is a graduate of the University of Rochester (N. Y.) School of Medicine and Dentistry, 1941. Dr. Kirby, formerly instructor in medicine at Stanford University School of Medicine, San Francisco, is a graduate of Cornell University Medical College, New York, 1940. He has been head of the chest department at Stanford University Hospitals since 1947.——John P. Brill Jr., Seattle, King County coroner, has been appointed clinical associate in forensic and legal medicine.

WEST VIRGINIA

Surveys for Medical School.—Dr. Wilburt C. Davison, dean of Duke University School of Medicine, has been selected by the Legislative Interim Committee, which is studying the advisability of the creation of a four year school of medicine and dentistry in the state, to make an independent study of the problem. A similar study will be made by Dr. Herman G. Weiskotten, dean of Syracuse (N. Y.) University College of Medicine. It is expected that the two surveys will begin shortly after the first of the year. Dr. Alan Gregg, director of medical science for the Rockefeller Foundation, who had previously been asked to make a separate survey, had found it impossible to accept the assignment. Senator Johnston and House Speaker W. E. Flannery are co-chairmen of the committee. The two separate surveys will be submitted for consideration by the Legislative Interim Committee as well as the Advisory Committee appointed by Governor Okey L. Patterson in July 1949. The Interim Committee is directed under the provisions of the resolution to report to the legislature at its regular session in 1951.

WISCONSIN

Faculty Promotions.—The University of Wisconsin Medical School, Madison, has announced the promotion of Drs. Edwin C. Albright to assistant professor and Helen P. Davis to associate professor of clinical medicine, Drs. Alice A. Thorngate to assistant professor of clinical pathology, Edwin M. Burns to assistant professor of neuropsychiatry and Simpon S. Burke Jr. to assistant professor of anesthesia. Dr. John B. Wear has been named professor of urology.

GENERAL

Putnam Fellowship Available.—The Helen Putnam fellowship for advanced research in genetics of mental health, open to women scholars who have their doctorate, will be offered by Radcliffe College for the academic year 1950-1951. The award carries a stipend of $2,800 a year with the possibility of renewal. Applicants are asked to submit a plan of research, and preference will be given to those whose research is already in progress. This year will mark the sixth time the fellowship has been offered. Applications should be returned to the Secretary of the Graduate School, Radcliffe College, Cambridge, Mass., not later than April 1, 1950.

Domus Medica.—The International Center of Medical Welcoming Organizations, Domus Medica, occupies a new office at 111 East Oak Street, Chicago. The organization has corresponding offices in the principal countries of the world. Physicians may write for information or for international contacts. The Domus Medica has also a new branch available to surgeons known as the Domus Chirurgica, which is located at the home of the International College of Surgeons, 1516 Lake Shore Drive, Chicago. It will offer to surgeons the same service as Domus Medica. Dr. Valentin Charry will direct both.

Joseph F. McCarthy Award.—The Western Section of the American Urological Association is announcing an essay competition for the Joseph F. McCarthy Prize Award. The essay should be based on some specific clinical or laboratory research in urology. Interns, residents and assistants to private practitioners as well as members in private practice less than 10 years are eligible to compete. Essays must be sent to Dr. Adolph A. Kutzmann, secretary-treasurer, 1930 Wilshire Boulevard, Los Angeles 5, Calif., not later than March 1, 1950. The winner will receive $200 and will present his paper at the annual meeting to be held in the Yosemite Valley, Calif., May 8-11, 1950.

Tropical Medicine Society Elections.—The American Society of Tropical Medicine, the American Academy of Tropical Medicine and the National Malaria Society, which met conjointly in Memphis, Tenn., Nov. 6-9, elected the following officers for 1950: The American Society of Tropical Medicine chose Dr. Paul F. Russell, New York, president-elect and Quentin M. Geiman, Ph.D., Bethesda, Md., secretary-treasurer. The American Academy of Tropical Medicine elected Ernest C. Faust, Ph.D., president, Clay G. Huff, ScD., secretary and Dr. Henry E. Meleney, New York, treasurer. The National Malaria Society chose Dr. Russell president, Justin M. Andrews, Sc.D., Atlanta, Ga., president-elect and Martin D. Young, Sc.D., Columbia, S. C., secretary-treasurer.

Sugar Research Award.—The $25,000 Grand Prize of the Sugar Research Foundation, Inc., which will be given for the most significant discovery of the preceding five years, will be awarded on or about March 15, 1950. The National Science Fund is desirous of having as many contributions as possible for consideration by the Advisory Committee in charge of recommendations for award. The award will be given in recognition of the discoveries, inventions or developments in the chemistry, physiology, metabolism or technologic application of carbohydrates which contribute most significantly to an understanding of the functions of sugar or to the practical utilization of sugar as a food or an ingredient of foods or in medicine, agriculture, the arts or the industries. Entries for the award should be submitted to the Executive Secretary of the National Science Fund of the National Academy of Sciences, 2101 Constitution Avenue, Washington, D. C., on or before Feb. 1, 1950.

Surgeons to Hold Sectional Meetings.—The first of a series of seven sectional meetings of the American College of Surgeons will be held in Belleair, Fla., January 9 and 10 with headquarters at the Belleview-Biltmore. The meeting is for physicians from Florida, Georgia, Alabama, Mississippi, Virginia, North Carolina and South Carolina, although there is no geographic restriction. The other six sectional meetings will be held in El Paso, February 13-14; Louisville, February 20-21; Pittsburgh, March 14-15; Montreal, March 20-21; Winnipeg,

April 3-4, and Seattle, April 10-11. At Belleair luncheons will be followed by roundtable conferences on subjects presented at the morning sessions. Panel discussions for medical personnel on the first afternoon will be on Physiologic Problems in Pelvic Surgery and Intestinal Obstruction. A symposium on cancer includes discussions of melanomas, differential diagnosis of brain tumors and ovarian tumors. On the second day panel discussions on Surgery of the Hand and Surgical Lesions of the Stomach will feature the afternoon medical program. Hospital personnel will hold conferences both morning and afternoon.

Damon Runyon Research Fellowships.—The American Cancer Society announces the availability of fellowships made possible by a grant from the Damon Runyon Memorial Fund for Cancer Research to the American Cancer Society. They are administered by the society on recommendation of the Committee on Growth of the National Research Council. In most cases a fellowship will provide a period of training in a hospital under the guidance of a qualified clinical investigator. However, fellowships may be awarded to provide training in a basic science,. provided that such training is directed toward preparing the fellow for clinical cancer research. They are limited to men and women holding the M.D. degree and are intended to provide training for clinical cancer research rather than for cancer diagnosis and therapy. Applications submitted prior to March 1, 1950 will be acted on during April. Fellowships approved at that time may become effective July 1, 1950 or at such other time as will meet the convenience of the fellow and the institution. Communications should be addressed to the Executive Secretary, Committee on Growth, National Research Council, 2101 Constitution Avenue, N.W., Washington 25, D. C.

Death of Ryland Greene.—Mr. Ryland W. Greene, Haverford, Pa., for many years vice president of the W. B. Saunders Company, Philadelphia, died November 19 at his home of heart failure following chronic bronchiectasis. Mr. Greene was widely known in the medical profession, particularly for his work in editing the American Illustrated Medical Dictionary, which he started in 1898 in association with Dr. W. A. N. Dorland and continued until his death. He had a vast knowledge of medical literature and was instrumental in the publication of the first volume of "Collected Papers of the Mayo Clinic," which have been published annually since 1909, and in the publication of the J. B. Murphy Clinics in 1912, which later developed into the *Surgical Clinics of North America* and the *Medical Clinics of North America*, both still published annually. He was manager of the London office of the Saunders Company for two years, then returned to the homeland to become manager of the editorial department. He was born in Massachusetts, the son of a physician, and he assisted his father in editing medical dictionaries after graduating from the University of Pennsylvania. For a few years he edited Lippincott's Medical Dictionary. He joined the Saunders Company in 1898 and retired in 1942, still devoting the remaining years to the revisions of his medical dictionaries. He was humble and kind and ever thoughtful of the needs and desires of others.

Mr. Ryland W. Greene

Appeal from Bulletin of Atomic Scientists.—A joint appeal to friends of American science on behalf of the *Bulletin of the Atomic Scientists* has been issued by J. Robert Oppenheimer, director of the Institute for Advanced Study, Princeton, N. J.; Detlev W. Bronk, Sc.D., president of Johns Hopkins University, Baltimore; D. Lee A. DuBridge, Sc.D., president of the California Institute of Technology, Pasadena, Calif., and Harold C. Urey, Sc.D., of the Institute for Nuclear Studies, University of Chicago. The appeal asked for subscription to a $75,000 fund to enable publication to continue.

The *Bulletin of the Atomic Scientists* was founded in 1945 by scientists at the University of Chicago. In its early years the bulletin was partially supported by grants from the Emergency Committee of Atomic Scientists. At the end of 1948 a Board of Sponsors was formed to counsel and support the bulletin. Under the chairmanship of J. Robert Oppenheimer, with Harold C. Urey as vice chairman, the board of sponsors includes six Nobel Prize winners and many leading atomic scientists. In this appeal for funds the scientists ask for contributions to be sent to Dr. Harold C. Urey, Educational Foundation for Nuclear Science, Inc., 956 East 58th Street, Chicago 37, Ill.

Advisory Board of Miner's Welfare Fund.—Following is an abstract of a communication submitted by Dr. Royd R. Sayers, chairman of the Medical Advisory Board of the United Mine Workers of America Welfare and Retirement Fund: The fourth meeting of the Medical Advisory Board of the United Mine Workers of America Welfare and Retirement Fund was held on September 9 in Washington, D. C. Board members present were Drs. Royd R. Sayers, Carl M. Peterson, Robin C. Buerki, Walter E. Vest, William W. Haggart, Harold S. Diehl and Floyd C. Beelman. Unable to attend were board members Drs. Dean A. Clark and E. L. Bishop. In addition there were the area medical administrators of the fund, their assistants and the Washington staff. Dr. Warren F. Draper, executive medical officer, presented excerpts from reports submitted to him by the area medical administrators covering various phases of the medical program. Satisfactory relationships have been established with the physicians, hospitals and associated groups, with but few exceptions. The State Medical Advisory Committees have been particularly helpful in avoiding misunderstanding. The quality of service varies; it was the opinion, in regard to fees in general, that these have not been excessive. The invoices have required careful scrutiny. Discussion was held on the paraplegic program, silicosis, tuberculosis, arthritis, cerebral palsy and the psychiatric problem. In reporting on the paraplegic program, Dr. Sayers stated that to date 472 severely handicapped patients have received treatment, approximately 68 per cent of which patients are paraplegic. Arrangements have been completed with state vocational rehabilitation agencies in every coal-mining area for the referral of physically handicapped miners to local vocational rehabilitation counselors. The fund has established a working agreement whereby patients obtain counseling and guidance while in the special treatment centers, so that miners may continue certain phases of their physical rehabilitation on discharge from the special centers to complete their training. In a discussion of the silicosis problem, it was stated that a number of treatment centers, based on studies and research carried on by Dr. Burgess L. Gordon and associates of Barton Memorial Hospital, Philadelphia, have been established in several bituminous areas. Dr. Vest proposed the following resolution, which was passed by the Medical Advisory Board: The beneficiaries of the Welfare and Retirement Fund, as citizens of the community in which they reside, should have access to the same preventive and clinical services and facilities provided at public expense as any other citizen of the community.

CORRECTION

Toxicity of Tetrachloroethylene.—In the eighth line of the answer to the query by this title in THE JOURNAL, Oct. 8, 1949, page 426, the words "parts per thousand" should have read "parts per million."

Marriages

GEORGE FIRTH BRAMPTON, Erie, Pa., to Miss Hasseltine Chaplin Brill of Slaterville Springs, N. Y., October 2.

ALOYSIUS JOHN FANTA to Miss Ann Marie Herman, both of Cleveland Heights, Ohio, October 1.

THOMAS C. PIEKENBROCK, Milwaukee, to Miss Margaret Louise Reed of Shamokin, Pa., September 14.

ROBERT DAWSON, Cuyahoga Falls, Ohio, to Miss Jeannie Marie Carlyle in Mattoon, Ill., October 16.

JAMES TODD WELBORN, Lexington, Ky., to Miss Lillian Marie Summers of Charlotte, N. C., October 22.

MELVIN C. FERRIER, Philipsburg, Pa., to Miss Rhoda L. Ashworth of Osceola Mills, September 24.

BEVERLY DEW HAIRFIELD to Miss Elizabeth Susan Gaston, both of Morganton, N. C., October 22.

MERRITT BUTLER SHOBE, Salem, N. J., to Miss Rita Amelie Halphen at Princeton, September 21.

PAUL W. JOHNSTON, Alhambra, Calif., to Miss Lillian Rogstad at Pasadena, November 25.

JOSEPH WARD HOOPER JR., to Miss Nell Hunter Trask, both of Wilmington, N. C., October 22.

H. THARP POSEY to Miss Grace Kahao Scranton, both of New Orleans, November 18.

CHARLES C. JACOBS, St. Louis, to Miss Lois Louise Long of Decatur, Ill., October 16.

JOHN R. CRAIG to Miss Rosanne Monahan, both of Waltham, Mass., September 10.

Deaths

Sigmund S. Greenbaum ✠ Philadelphia; born in Philadelphia, March 7, 1890; Jefferson Medical College of Philadelphia, 1913; professor of clinical dermatology and syphilology at the University of Pennsylvania Graduate School of Medicine; fellow in research, Institute of Cutaneous Medicine; lecturer on skin and social diseases at the Philadelphia School of Occupational Therapy; specialist certified by the American Board of Dermatology and Syphilology; fellow of the American Academy of Dermatology and Syphilology and the American College of Physicians; member of the American Association for the Advancement of Science, Medical Club of Philadelphia, Philadelphia College of Physicians and the Philadelphia Dermatological Society; served during World War I; associated with the Philadelphia General Hospital, the Graduate Hospital of the University of Pennsylvania, Rush Hospital and Philadelphia Psychiatric Hospital; consulting dermatologist at the Bamberger Home and the Betty Bacharach Home in Atlantic City, N. J., Eagleville (Pa.) Sanatorium for Consumptives and the Camden (N. J.) General Hospital; director of the Bankers Securities Corporation; co-author of a textbook entitled "Diseases of the Mouth and Their Treatment"; author of "Dermatology in General Practice"; died October 3, aged 59, of coronary occlusion.

William Clark Danforth ✠ Evanston, Ill.; born in Chicago July 30, 1878; Northwestern University Medical School, Chicago, 1903; associate professor of obstetrics and gynecology at his alma mater from 1919 to 1937 and professor from 1937 to 1946, when he became professor of obstetrics and gynecology emeritus; fellow of the American Gynecological Society, of which he had been treasurer, member of the council and president; fellow and past president of the Chicago Gynecological Society; a founder member, in 1945 president and for two terms member of the board of governors of the Institute of Medicine of Chicago; fellow of the American College of Surgeons; member of the Chicago Society of Medical History; member of draft board number two in Cook County during World War I; for many years chief of the department of obstetrics and gynecology at Evanston Hospital; consulting gynecologist at Wesley Memorial Hospital; the fourth generation of his family to practice medicine; author of chapters in Curtis' "Obstetrics and Gynecology" and of a chapter in Christopher's textbook "Surgery"; died in Evanston Hospital November 11, aged 71, of coronary occlusion.

Abraham Jacob Rongy ✠ New York; born in Russia Sept. 27, 1878; Long Island College Hospital, Brooklyn, 1899; specialist certified by the American Board of Obstetrics and Gynecology; fellow of the New York Academy of Medicine and the American College of Surgeons; member of the American Association for the Advancement of Science, American Genetic Association and the Academy of Political Science; honorary fellow of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons; a founder of the Jewish Maternity Hospital; associated with the Lebanon Hospital and the Hospital for Joint Diseases; consultant on the staff of the Rockaway Beach (N. Y.) Hospital; chairman of the Greater New York Committee on Periodic Health Examinations from 1928 to 1933; formerly on the editorial board of *Preventive Medicine;* author of "Childbirth Yesterday and Today" (1937) and "Safely Through Childbirth" (1937); died in the Mount Sinai Hospital October 10, aged 71, of hypertension and coronary occlusion.

William Sargent Ladd ✠ New York; born in Portland, Ore., Aug. 16, 1887; Columbia University College of Physicians and Surgeons, New York, 1915; since 1942 professor of clinical medicine, associate dean from 1931 to 1935 and dean from 1935 to 1942 at Cornell University Medical College, where in 1931-1932 he was assistant professor of medicine and from 1932 to 1942 professor of medicine; formerly on the faculty of his alma mater and Johns Hopkins University School of Medicine in Baltimore; member of the American Association for the Advancement of Science, Society for Experimental Biology and Society of Mammalogists; trustee of the New York Academy of Medicine and Memorial Hospital; served on the staffs of Nassau Hospital in Mineola, N. Y., Johns Hopkins Hospital, Baltimore, Presbyterian Hospital, Bellevue Hospital and New York Hospital; trustee of the American University of Beirut, Syria, from 1924 to 1941 and the Amherst (Mass.) College from 1936 to 1941; died in Presbyterian Hospital September 17, aged 62, of coronary thrombosis.

✠ Indicates Fellow of the American Medical Association.

Ransom Alphonso Greene, Wayland, Mass.; born in Williamstown, Vt., June 5, 1881; Baltimore Medical College, 1902; member of the American Medical Association, American Psychiatric Association and the New England Society of Psychiatry, of which he had been secretary; member and past president of the American Association on Mental Deficiency; veteran of the Spanish American War and World War I; in 1922 assistant to the commissioner, state department of mental diseases; formerly superintendent of the Taunton (Mass.) State Hospital, Walter E. Fernald State School, Waverley; at one time assistant superintendent of the Gardner (Mass.) State Hospital and the Danvers (Mass.) State Hospital; for many years associate professor of mental diseases at the Tufts College Medical School, Boston; specialist certified by the American Board of Psychiatry and Neurology; served as director of the Waverley (Mass.) Co-Operative Bank; died in the Mount Auburn Hospital, Cambridge, October 4, aged 68, of cirrhosis of the liver.

Joseph Berry Greene, Asheville, N. C.; born in Birmingham, Ala., Oct. 18, 1869; University of Virginia Department of Medicine, Charlottesville, 1893; past president of the Buncombe County Medical Society; member of the American Medical Association and the American Academy of Ophthalmology and Otolaryngology; member and at one time vice president of the American Laryngological Association and the American Laryngological, Rhinological and Otological Society; fellow of the American College of Surgeons; specialist certified by the American Board of Otolaryngology; veteran of the Spanish-American War and World War I; served on the staffs of the Western North Carolina Sanatorium and Fellowship Sanatorium of the Royal League in Black Mountain, Asheville Mission Hospital, Biltmore Hospital, St. Joseph's Hospital and Aston Park Hospital; died October 10, aged 79, of arteriosclerosis and hypertension.

Maurice Oppenheim ✠ Chicago; born in Vienna, Austria, Sept. 1, 1876; Medizinische Fakultät der Universität, Wien, Austria, 1899; professor and chairman of the department of dermatology and syphilology at the Chicago Medical School; specialist certified by the American Board of Dermatology and Syphilology; served as professor of dermatology at the University of Vienna and chief and head of the skin and venereal diseases department at Wilhelminen Hospital in Vienna, where he had been court counselor; member of the Chicago Dermatological Society, Society of Investigative Dermatology and the American Academy of Dermatology and Syphilology, as well as of Spanish, Austrian, French and English medical societies; during World War I major and chief of the department of skin and venereal diseases for Red Cross Hospital no. 1; author of many books; died in Edgewater Hospital October 27, aged 73, of acute coronary thrombosis with infarction.

Sheldon Stringer ✠ Tampa, Fla.; born in Brooksville, Fla., Jan. 23, 1883; University College of Medicine, Richmond, 1905; past president of the Hillsborough County Medical Society; formerly member of the state board of medical examiners and city health officer; honorary member of the New York and New England Association of Railroad Surgeons and the Association of Military Surgeons of the United States; surgeon for the Seaboard Railway for many years; surgeon, exemption board no. 1 during World War I; at one time physician in charge of the Gordon Keller Memorial Hospital and medical superintendent of the Tampa Municipal Hospital, where he died October 8, aged 66, of heart disease.

William David Donoher, Los Angeles; St. Louis College of Physicians and Surgeons, 1895; specialist certified by the American Board of Otolaryngology; member of the American Medical Association and the Western Ophthalmological Society; member and past president of the Pacific Coast Oto-Ophthalmological Society; past president of the Utah State Medical Association; at one time chief of staff, Holy Cross Hospital in Salt Lake City; affiliated with St. Vincent's Hospital and the Eye and Ear Hospital; died October 11, aged 76, of arteriosclerosis and aortic aneurysm.

E. Marvin Alexander, McKenzie, Tenn.; University of Tennessee Medical Department, Nashville, 1900; died September 19, aged 70, of uremia and arteriosclerosis.

William Meade Archer ✠ Major, U. S. Army, retired, Richmond, Va.; Medical College of Virginia, Richmond, 1904; entered the medical corps of the U. S. Army in 1917; retired Dec. 18, 1922, after fourteen years' service; at one time on the faculty of Cornell University Medical College in New York, where he was a member of the board of directors of the New York Post-Graduate Medical School and Hospital; died November 4, aged 71, of heart disease.

Katharine Howard Baird ✠ Wauwatosa, Wis.; University of Wisconsin Medical School, Madison, 1938; specialist certified by the American Board of Pediatrics; member of the American Academy of Pediatrics; clinical instructor in pediatrics at the Marquette University School of Medicine in Milwaukee, where she was affiliated with the Milwaukee Children's Hospital; died in the South View Hospital October 29, aged 37, of bulbar poliomyelitis.

Claudius Estyl Bandy ✠ Bucklin, Kan.; Hospital College of Medicine, Louisville, 1905; affiliated with the Murray Memorial and St. Anthony hospitals, Dodge City; died recently, aged 72, of coronary occlusion.

Joseph Michael Blake, Moline, Ill.; Rush Medical College, Chicago, 1903; for many years resident physician for the Congress Hotel in Chicago; died October 1, aged 74, of carcinoma of the prostate and cerebral hemorrhage.

Robert Tankersley Bonney, Fairfield, Ala.; Tulane University of Louisiana School of Medicine, New Orleans, 1941; served during World War II; affiliated with the Employees' Hospital of the Tennessee, Coal, Iron and Railroad Company; killed in an automobile accident October 7, aged 32.

Irenarch Sylvester Buzard, Jefferson, Iowa; Keokuk (Ia.) Medical College, 1898; member of the American Medical Association; died September 6, aged 76, of carcinoma of the stomach.

Grant Reynolds Christenson ✠ Minneapolis; University of Minnesota Medical School, Minneapolis, 1931; died October 19, aged 48, of coronary thrombosis.

Edward S. Conlyn, Carlisle, Pa.; Hahnemann Medical College and Hospital of Philadelphia, 1880; died in the Carlisle (Pa.) Hospital November 1, aged 91, of arteriosclerosis and gangrene of the right leg.

Johann N. Dieter, Abilene, Kan.; University Medical College of Kansas City, Mo., 1904; also a graduate in pharmacy; member of the American Medical Association; affiliated with the Dickinson County Memorial Hospital; died October 9, aged 68, of cerebellar neoplasm.

John Waldo Hagan, Spanish Fork, Utah; Marion-Sims-Beaumont Medical College, St. Louis, 1904; member of the American Medical Association; died in Utah Valley Hospital, Provo, October 2, aged 65, of coronary disease.

Louis J. Harris, Chicago; College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, 1906; died in Passavant Memorial Hospital October 26, aged 68, of empyema and heart disease.

Henry F. C. Heagey, Cochranville, Pa.; Jefferson Medical College of Philadelphia, 1883; member of the American Medical Association; died in St. Joseph's Hospital, Lancaster, October 7, aged 92, of thrombosis.

William Giles Hess, Holtwood, Pa.; University of Pennsylvania Department of Medicine, Philadelphia, 1898; member of the American Medical Association; served as deputy coroner; died October 5, aged 74, of coronary occlusion.

Mary Sue Tipton Mullins Jolliffe ✠ Larchmont, N. Y.; University of Tennessee College of Medicine, Memphis, 1929; served in the U. S. Navy during World War II; died in the Neurological Institute, New York, October 7, aged 48.

John Charles McAdams, Pangburn, Ark.; Chattanooga (Tenn.) Medical College, 1905; died September 20, aged 74.

John Dryden McBride ✠ Hillsboro, Ohio; Cincinnati College of Medicine and Surgery, 1901; affiliated with Highlands Community Hospital; died in Holmes Hospital, Cincinnati, September 28, aged 74, of peritonitis following a ruptured colon due to an accident.

George Henry McConnon, Waymart, Pa.; University of Pennsylvania Department of Medicine, Philadelphia, 1902; served during the Spanish-American War and World War I; affiliated with Farview State Hospital; died September 19, aged 69, of acute coronary occlusion.

John Francis McGrath ✠ New York; Cornell University Medical College, New York, 1908; assistant professor of clinical obstetrics and gynecology at his alma mater; specialist certified by the American Board of Obstetrics and Gynecology; fellow of the American College of Surgeons; affiliated with the New York Hospital; director, department of obstetrics and gynecology, St. Vincent's Hospital, where he died October 15, aged 63, of cerebral hemorrhage.

Chilton W. McLaughlin, Kansas City, Kan.; College of Physicians and Surgeons, Medical Department Kansas City University, 1900; member of the American Medical Association; coroner of Wyandotte County; served on the staff of St. Margaret's Hospital; died in Providence Hospital September 22, aged 77, of cirrhosis of the liver.

Donald Kenneth MacQueen ✠ Laurium, Mich.; Trinity Medical College, Toronto, Ont., Canada, 1890; an Associate Fellow of the American Medical Association; on the staff of Calumet Public Hospital; died recently, aged 82, of coronary occlusion.

David Mansowit ✠ Chicago; University of Illinois College of Medicine, Chicago, 1931; charter member of the American College of Allergy; served during World War II; affiliated with the allergy clinic at Mount Sinai Hospital and on the staff of the Edgewater Hospital; died in the Albert Merritt Billings Hospital October 17, aged 44.

John Angelo Marchetti, Brooklyn; University and Bellevue Hospital Medical College, New York, 1924; died in Brooklyn Hospital October 13, aged 50, of coronary thrombosis.

Robert Matthews ✠ Clarinda, Iowa; Trinity Medical College, Toronto, Canada, 1898; died recently, aged 74, of cerebral hemorrhage.

Robert Peale Matthews, Philadelphia; Howard University College of Medicine, Washington, D. C., 1924; affiliated with Mercy and Frederick Douglass Memorial hospitals; died October 6, aged 50, of hypertensive cardiovascular disease.

John David Miller, Bridgewater, Va.; Medical College of Virginia, Richmond, 1906; member of the American Medical Association; died in Rockingham Memorial Hospital, Harrisonburg, September 19, aged 79, of hypertension and arteriosclerosis.

Thomas Homer Miller, Fairmont, W. Va.; Eclectic Medical Institute, Cincinnati, 1893; died October 6, aged 83, of cancer.

James Clifford Mobley ✠ Elizabethtown, Ky.; Kentucky School of Medicine, Louisville, 1897; an Associate Fellow of the American Medical Association; past vice president of the Kentucky State Medical Association; past president of the Hardin County Medical Society; served as a member of the county board of health; examiner during World War I; died recently, aged 85, of cerebral hemorrhage.

Hardeman Cordell Montague, Muskogee, Okla.; Kansas City (Mo.) College of Medicine and Surgery, 1920; past president of the state board of medical examiners; died September 23, aged 69, of heart disease.

John William Moore, Oklahoma City, Okla.; College of Physicians and Surgeons, Dallas, 1906; also a pharmacist; died September 19, aged 76, of carcinoma of the prostate.

Frederick Norman Morford ✠ Muskegon, Mich.; Detroit College of Medicine and Surgery, 1916; served during World War I; past president of the Muskegon County Medical Society; affiliated with Mercy Hospital and Hackley Hospital, where he died September 12, aged 56, of arteriosclerotic heart disease.

David Cummins Morton, Richmond, Va.; University of Pennsylvania Department of Medicine, Philadelphia, 1902; past president and for many years chairman of the board of Ballard & Ballard Company in Louisville, Ky.; died October 13, aged 71.

Myron A. Myers, Kansas City, Mo.; University of Wisconsin Medical School, Madison, 1939; member of the American Trudeau Society; served during World War II; died in Glen Haven township, Wis., recently, aged 34, of brain tumor.

May Fonda Nadeau, Seattle; University of Michigan Department of Medicine and Surgery, Ann Arbor, 1898; member of the American Medical Association; died in the Providence Hospital October 30, aged 80, of arteriosclerotic heart disease.

Byron Hubern Nellans, Cincinnati; Eclectic Medical College, Cincinnati, 1914; member of the American Medical Association; superintendent of the Hamilton County Home and Chronic Disease Hospital; died October 3, aged 57, of acute coronary thrombosis.

Charles Bertram Nichols ✠ Auxvasse, Mo.; Barnes Medical College, St. Louis, 1906; an Associate Fellow of the American Medical Association; died in Fulton, October 3, aged 80, of injuries received in an automobile accident.

Garrett Amos Norton, Aurora, Ill.; Rush Medical College, Chicago, 1884; served as secretary of the Kane County Medical Society; formerly health officer of St. Charles; died October 23, aged 90, of angina pectoris.

Donald Parker, Syracuse, N. Y.; University of Buffalo School of Medicine, 1898; member of the American Medical Association; died October 25, aged 75, of cerebral hemorrhage, arteriosclerosis and hypertension.

James Edward Parsons, Dixon, Calif.; University of Louisville School of Medicine, 1916; member of the American Medical Association; served on the staffs of Sutter Hospital in Sacramento and the Woodland (Calif.) Clinic; died in Sacramento September 22, aged 66, of cerebral hemorrhage.

Angelo Victor Pelosi, Philadelphia; Temple University School of Medicine, Philadelphia, 1926; member of the American Medical Association; senior medical officer in the city department of health; president of the board of La Scala Opera Company; died October 26, aged 50, of coronary occlusion.

Abdon Valerian Piskorski ⊕ Jersey City, N. J.; College of Physicians and Surgeons, Baltimore, 1902; also a graduate in pharmacy; veteran of the Spanish-American War; served on the staffs of Hudson County Hospital for Mental Diseases at Secaucus and the Christ, St. Francis and Greenville hospitals; died September 28, aged 72, of cerebral hemorrhage, hypertension and arteriosclerosis.

Owen Dale Platt, St. Maries, Idaho; University of Nebraska College of Medicine, Omaha, 1903; served in the state senate; died September 27, aged 74.

Bradford Cleaver Powers, Rutland, Vt.; University of Vermont College of Medicine, Burlington, 1912; member of the American Medical Association; died in the Mary Fletcher Hospital, Burlington, October 29, aged 72, of heart disease.

Joshua Bennett Pratt, Natchitoches, La.; University of Arkansas School of Medicine, Little Rock, 1905; died September 22, aged 71.

Thena Robinson, Bethany, La.; Baylor University College of Medicine, Dallas, Texas, 1905; died in the Highland Sanitarium, Shreveport, September 27, aged 80, of cerebral hemorrhage.

William Alfred Rolfe ⊕ Boston; Harvard Medical School, Boston, 1890; member of the American Protologic Society and the Association of Military Surgeons of the United States; on the staff of Boston Dispensary; died September 24, aged 80, of pulmonary edema, myocarditis and pericarditis.

Roger Lee Ruggles, Westfield, Mass.; Tufts College Medical School, Boston, 1929; affiliated with Noble Hospital; member and past president of the Westfield Business and Professional Men's Club and the Kiwanis Club; died in the Eastern Maine General Hospital, Bangor, Maine; October 28, aged 44, of accidental gunshot wounds received while hunting.

William Christopher Schiele ⊕ Galena, Ill.; College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, 1912; member of the American Association of Industrial Physicians and Surgeons; served as county physician; died September 1, aged 62, of uremia.

William Francis Shannon ⊕ Detroit; University of Cincinnati College of Medicine, 1938; specialist certified by the American Board of Obstetrics and Gynecology; fellow of the American College of Surgeons; member of the Association of Military Surgeons of the United States; served during World War II; affiliated with the Evangelical Deaconess Hospital; died September 14, aged 38.

Oliver Franklin Shearer, Downs, Kan.; Jefferson Medical College of Philadelphia, 1883; died September 29, aged 92, of pneumonia.

Stephen Ulysses Sivon ⊕ Ravenna, Ohio; University of Wooster Medical Department, Cleveland, 1912; past president of the Portage County Medical Society; affiliated with Robinson Memorial Portage County Hospital; died October 16, aged 63, of cerebral hemorrhage.

William Fredrick Skelley, El Paso, Texas; College of Physicians and Surgeons, Keokuk, Iowa, 1894; for many years practiced in Davenport, Iowa, where he was county coroner and president of the Scott County Medical Society; died in San Diego, Calif., September 25, aged 79.

James Franklin Smith ⊕ San Francisco; Cooper Medical College, San Francisco, 1894; died September 27, aged 76.

J. H. Smith, Oxford, Ark.; Memphis (Tenn.) Hospital Medical College, 1899; died in Allen Hospital, Batesville, October 4, aged 80, of myocardial failure.

Karl Leavitt Smith, Laconia, N. H.; Albany (N. Y.) Medical College, 1940; certified by the National Board of Medical Examiners; member of the American Medical Association; past president of the Belknap County Medical Association; on the staff of Laconia Hospital, where he died November 5, aged 39, of coronary occlusion.

Benager Columbus Teasley Jr. ⊕ Robinson, Ill.; Emory University School of Medicine, Atlanta, 1936; served during World War II; died September 7, aged 36, of malignant hypertension.

Alexander Watkins Terrell Jr. ⊕ Dallas, Texas; University of Pennsylvania School of Medicine, Philadelphia, 1934; specialist certified by the American Board of Internal Medicine; associate professor of medicine at the Southwestern Medical College; affiliated with Baylor University, Gaston and Parkland hospitals; died October 16, aged 41.

Irenaeus Nicholson Tucker ⊕ Racine, Wis.; Tulane University of Louisiana School of Medicine, New Orleans, 1915; member of the American Association of Industrial Physicians and Surgeons; served during World War I; died October 21, aged 57, of coronary arteriosclerosis.

Heman Augustus Tyler, New London, Conn.; Yale University School of Medicine, New Haven, 1898; served during World War I; formerly affiliated with the U. S. Public Health Service and various Veterans Administration facilities; at one time surgeon for the U. S. Coast Guard Station and associated with the Soldiers Hospital of Connecticut, Noroton Heights; died in Fairfield, October 1, aged 72, of coronary thrombosis and arteriosclerosis.

Joseph Anthony Villa, South Paris, Maine; Georgetown University School of Medicine, Washington, D. C., 1934; member of the American Medical Association; served during World War II; local health officer and school physician; on the courtesy staffs of the Maine General Hospital, Portland, and the Central Maine General Hospital, Lewiston; died October 27, aged 41, of coronary occlusion.

Charles Renough Vinal ⊕ Turners Falls, Mass.; Harvard Medical School, Boston, 1907; affiliated with the Franklin County Public Hospital, Greenfield, and the Farren Memorial Hospital in Montague City; died October 15, aged 68, of coronary thrombosis.

Howard Crosby Voorhees, New Brunswick, N. J.; Columbia University College of Physicians and Surgeons, New York, 1906; member of the American Medical Association; died in St. Peter's General Hospital November 2, aged 70.

Leo Orrin Voorus, Milwaukee; Wisconsin College of Physicians and Surgeons, Milwaukee, 1911; served during World War I; died in the Veterans Administration Hospital, Wood, recently, aged 60, of pulmonary tuberculosis.

Thomas Henry Watkins ⊕ Lake Charles, La.; Medical Department of Tulane University of Louisiana, New Orleans, 1895; on the staff of the St. Patrick Hospital; vice president and director of the Calcasieu Building and Loan Association; president of the Gulf National Bank; died October 29, aged 77, of carcinoma.

Hervey Beale Weiss, Philadelphia; Jefferson Medical College of Philadelphia, 1901; member of the American Medical Association; died October 17, aged 72, of coronary occlusion.

James Higgins Whaley ⊕ Rome, N. Y.; Bellevue Hospital Medical College, New York, 1888; associated with the Oneida County Hospital; for many years physician for the New York Central Railroad and jail physician; died October 12, aged 87.

Russell H. Wilcox, Tonawanda, N. Y.; University of Buffalo School of Medicine, 1906; member of the American Medical Association; served as secretary of the New York State Health Officers Association; member of the county board of health; health officer of Tonawanda for many years; died October 9, aged 67, of coronary thrombosis.

Robert Henry Wilds ⊕ Aiken, S. C.; Columbia University College of Physicians and Surgeons, New York, 1910; served as secretary treasurer of the Aiken County Medical Society; affiliated with Aiken County Hospital, where he died November 1, aged 66, of carcinoma of the liver.

Louis Edwin Williams ⊕ Madison, N. J.; M.B., 1913 and M.D., 1914, Queen's University Faculty of Medicine, Kingston, Ontario, Canada; served with the British Army during World War I; attending surgeon, Morristown (N. J.) Hospital; died October 22, aged 58, of coronary thrombosis.

Robert Preston Winterode ⊕ Baltimore; Baltimore Medical College, 1900; member of the American Psychiatric Association; for many years medical superintendent of the Crownsville (Md.) State Hospital; died in Union Memorial Hospital September 19, aged 74, of coronary occlusion and arteriosclerosis.

George Craggs Winterson, Omaha; University of Maryland School of Medicine, Baltimore, 1902; died October 31, aged 70, of pulmonary edema and heart disease.

Frank Womer, Clifton, N. J.; Jefferson Medical College of Philadelphia, 1889; member of the American Medical Association and the Medical Society of the State of Pennsylvania; died October 4, aged 90.

Foreign Letters

ITALY

(From Our Regular Correspondent)

NAPLES, Nov. 14, 1949.

National Congress of the Italian Medical Association

During November 1949 the two most important national meetings, the Fiftieth Congress of the Italian Medical Association and the Fifty-First Congress of the Italian Surgical Association were held in Rome. The sessions were held in the Aula Magna of the University. In addition to Italian authorities, including the Minister of Instruction, representing the government and the High Commissioner of Public Health, scientists from foreign countries had been invited to hold conferences on subjects in which they were considered experts: Professors Joao Cid dos Santos (Lisbon), Wertheimer (Lyon, France), Kunlin (Paris), Reboul (Paris) and many others.

DISEASES OF PERIPHERAL VESSELS

Peripheral vascular disease was the first subject of the congress. Professor Sabatini of Genoa and his pupil (Santucci) presented reports for the medical association. Professor Sabatini limited his report to a classification of the peripheral arterial diseases: organic, functional, directly traumatic and generic. The generic type was subdivided into inflammatory and noninflammatory with predominance of the erythrocytic, thrombocytic, plasmic and cytoplasmic changes of the blood.

The contributions made by the surgical session were of major importance. The speakers were Prof. A. M. Dogliotti of Turin and his pupils, E. Malan, who teaches at the University of Catania, and Dr. G. Enria (Turin). Dogliotti's school adheres to the classification reported by Leriche at the International Congress of Surgery in Cairo (Egypt) some years ago: thromboangiitis of "Buerger's type" or thromboangiosis or juvenile arteriopathy; senile arteritis or sclerotic arteritis, comprising the atheromatoses, among them the diabetic forms.

Malan attributed importance to migrating phlebitis in the pathogenesis of many juvenile arterial diseases; he demonstrated an infectious tendency in many forms of Buerger's disease. He then discussed the technics by which he diagnoses the disease in each case: thermometry, oscillometry, plethysmography, capillaroscopy, concentration of radioactive isotopes determination of the cutaneous fluorescence with fluorescein and, finally, arteriography. The Italian school gives priority to the last-mentioned technic, which it considers the best and most reliable means of ascertainment in the hands of an expert. Malan had shown many arteriographic and angiographic recordings from which one could determine not only the size of the thrombus but the exact condition of the collateral circulation before and after operation. He then discussed endoarterial therapy with antiseptics and antibiotics or spasmolytics and vasodilators (curare and others) or by infusion of oxygen to modify the metabolism of the tissues in gangrene. He also discussed surgical methods of treatment: adrenalectomy, parathyroidectomy, operation on the sympathetic innervation (sympathectomy and block anesthesia of the sympathetic nerve), ganglionectomy and arterial "disobstruction" therapy, with removal of the thrombus either by direct route or, according to Santos' method, by vascular grafts.

REPORTS OF DOS SANTOS, WERTHEIMER AND OTHERS

Prof. Gino Pieri, chairman of the meeting, first reported on his personal contributions, then called on representatives of foreign countries. Prof. Dos Santos presented photographs proving the high degree of success reached by him and his father, Reynaldo Dos Santos, pioneer of arteriography, by freeing the thrombus with consequent vascular reconstruction.

Wertheimer reported his personal contribution to adrenalectomy. He does not consider this operation dangerous when performed unilaterally by an expert. Professors Kunlin and Reboul reported the outstanding contributions of the school of Prof. René Leriche.

The affirmation of the surgical report on the subject of peripheral vascular diseases resulted from the fact that Malan, before writing his paper, contacted the main centers of European specialists (Leriche in Paris, Dos Santos in Portugal) in order to perfect his knowledge of surgical technics.

VIRUS AND RICKETTSIAL DISEASES OF THE RESPIRATORY APPARATUS

Respiratory disorders caused by virus and Rickettsia were the second subject of the congress. Prof. C. Frugoni, director of the Medical Clinic in Rome, was the speaker; his school was represented, in addition, by Prof. F. Magrassi (Sassari, Sardinia), G. Giunchi (Rome) and G. Ambesi Impiombato (Rome). The report was a review of viruses, with frequent references to the North American and British schools. The most important statement concerned Q fever (Rickettsia burneti); the incidence of this disease was reported to be much higher than had been believed. The speakers discussed a large number of clinical cases observed in Italy. Contrary to the concept that Q fever was an aftermath of the war, following the invasion of the allied armies, it had been known in Italy under various names before the outbreak of the war.

FAMILIAL BLOOD DISORDERS

Familial blood disorders constituted the third and last subject discussed at the congress. Professor Di Guglielmo, president of the Italian Hematologic Society, was the speaker. Prof. L. Pontoni of Naples and E. Silvestroni of Rome were co-speakers. Silvestroni reported on Cooley's disease. This fatal disease of children is known under the name "Mediterranean anemia" because of its fairly high incidence in countries on the shores of the Mediterranean (Italy, Greece, Turkey). It may be considered a hereditary disease which does not occur in the ancestry as Cooley's disease but as a condition with a peculiar hematologic picture, which the speakers called microcythemia. An ancestor apparently may enjoy normal health in spite of the microcythemia, but he may transmit Cooley's disease to his descendants. The hemopathic disorder may be linked to sex in accordance with the common hereditary laws. If the father is microcythemic but the mother is not, 20 per cent of the daughters may have Cooley's anemia. If the mother is micocythemic and the father is not, the sons will have the disease. When both parents are microcythemic, 50 per cent of their offspring will have Cooley's anemia. So strong is this hereditary factor, according to the speaker, that, in cases of establishment of paternity of a person with Cooley's disease, it would be necessary to establish the presence of microcythemia in both parents.

The high incidence of Mediterranean anemia in the regions of Apulia, Sicily and Sardinia, and particularly in the province of Ferrara, is explained by this highly important study. The microcythemic persons in these areas come from the union of different races at the time of preceding invasions of Italy by populations from the East.

Prof. Di Guglielmo closed his report by imploring physicians to advise microcythemic persons against having children.

DR. FISHBEIN AT THE UNIVERSITY OF NAPLES

On Nov. 7, 1949, Dr. Morris Fishbein, Editor of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, presented a paper on "The Contribution of Medical Journalism to Contemporary Scientific Progress" in the auditorium of the First Medical Clinic of the University, under the chairmanship of Prof. G. Di Guglielmo and in the presence of thousands of Italian physicians. The speaker, who the day before had been introduced

by the Italian broadcasting station and had been interviewed by the newspaper reporters, discussed the definite contribution made by medical journalism in the United States by stimulating broader culture among the physicians, by attacking quackery and by educating the masses. All those attending the conference payed tribute to medicine in North America, which according to general consensus is foremost in the world.

OSLO

(From Our Regular Correspondent)

Nov. 9, 1949.

New Headquarters of the Norwegian Medical Association

The Norwegian Medical Association, the membership of which had risen to 2,819 by 1949, has found its old quarters too cramped and has therefore doubled its floor space by moving into another building. The new address is: Drammensveien 6, Oslo. About 95 per cent of the Norwegian doctors belong to the association.

Diphtheria in Bergen

Observations made on diphtheria in Bergen (the second largest town in Norway) before, during and after World War II have added to the knowledge of this disease. Prof. T. M. Vogelsang, of Dr. Gade's Pathological-Anatomical Laboratory in Bergen, made the observation. There was a slow and uniform decline in the incidence of diphtheria between the two world wars; in 1919 the incidence was 873 per hundred thousand inhabitants, while in 1931 the figure was 371 and in 1940 it was only 2. Between 1935 and 1941 there was not a single death from diphtheria in Bergen.

Shortly before World War II serious epidemics of diphtheria broke out in Germany, with diphtheria gravis the predominant type. The invasion of Norway by the Germans in April 1940 was followed by the introduction of this type, which gradually replaced diphtheria intermedius, the dominant type when Bergen experienced a serious epidemic in 1942. The epidemic persisted during 1943 and 1944 (494 cases per hundred thousand inhabitants in 1943); it has since shown a gradual decline. In 1948 and 1949 only patients with diphtheria gravis were isolated. With this change from the intermediate to the grave type there has been a corresponding rise in the diphtheria mortality. In the autumn of 1942 diphtheria vaccination was made compulsory in the national schools, and by the end of 1948 nearly 20,000 of Bergen's 116,000 inhabitants had been vaccinated against diphtheria by three injections. Since 1942 diphtheria at the school age has practically ceased, and there has been a remarkable upward shift in the age distribution of the disease. During Bergen's last wartime epidemic, more than one fifth of the patients were over the age of 30, and there were several cases of severe disease among elderly persons.

Professor Vogelsang has lately determined the antitoxin content of the serums of 1,600 patients admitted to the various departments of the Bergen City Hospital; he employed Jensen's intracutaneous rabbit method. Some of these patients had been vaccinated against diphtheria; others had suffered from diphtheria, and others gave no history of diphtheria. He was surprised to find how low the diphtheria antitoxin level was in the adult population when he compared his findings with those of several other observers. This, so soon after such a serious epidemic, may seem surprising. The mass vaccination of certain age groups against diphtheria distinguished this from preceding epidemics. Professor Vogelsang is not alarmed by his discovery that a considerable proportion of the population may now be susceptible to infection, for the diminution, due to vaccination, in the number of carriers means that the chances of the non-immunized persons becoming infected are greatly reduced. He concludes, "Owing to the lack of sources of infection, the epidemic will die out, even if a great part of the population is still susceptible to infection."

Investigation of Suicidal Attempts

Successful suicide is different from attempted suicide, as recently pointed out by Dr. Borghild Krane, who has undertaken a searching investigation of persons referred to the psychiatric department of the Ullevaal City Hospital in Oslo because they had attempted to commit suicide. She notes that, while male suicides are much more frequent than female suicides, attempted suicides are most often the acts of women. Thus in the period 1935-1939, there were only 5 women to 20 men who committed suicide each year in Oslo. But in the period Jan. 1, 1940 to Sept. 1, 1948, persons attempting suicide and sent to the hospital for examination included 189 women and only 67 men. Men and women differ in another important respect; they do not commit suicide or attempt to do so by the same means. Women prefer narcotic drugs, whereas men prefer more active methods. Among the 189 women there were 17 whose attempted suicides were traceable to definite personality difficulties. Among the remaining 172 the precipitating causes of their acts were extraneous factors, among which erotic conflicts dominated in as many as 97 cases. Of these erotic conflicts, 45 were marital and 52 extramarital. Among the men who attempted suicide there were 23 whose action was prompted by erotic conflicts, marital or extramarital. Among the men there were as many as 26 whose attempted suicide could be traced to definite personality difficulties. There were only 5 men whose attempted suicides could be traced to alcoholism and only 3 to economic difficulties. While there were as many as 12 women who attempted suicide because of political difficulties, there were only 3 men who did so for this reason, in every case after 1945. It would seem easier to explain an attempted suicide in a man than in a woman, for in her case it is often a momentary impulse, an emotional wave, which drives her to this step even though her mental equilibrium had previously been fairly steady.

Prognosis for Ureteral Stone

Norwegian life insurance companies do not count a history of ureteral stone as a disability if at least five years have passed without a relapse. To check the soundness of this policy and to ascertain in general the outlook for such cases, Dr. Bjarne Landaas conducted a follow-up investigation of 162 patients (43 women and 119 men) who had been treated for ureteral stone at the Aker Hospital between 1930 and 1940. These cases did not include any in which there had also been stones in the kidneys. Information obtained about 135 of the 162 patients over 11 years after discharge from the hospital showed that 10 of them had died in the interval but that only 1 of these deaths could be traced to disease of the urinary tract. In about 30 per cent (9 women and 35 men) there was a history of ureteral stone also after discharge from the hospital. Among these cases of recurrence were 19 in which it had followed an interval of freedom from attacks for more than five years. Dr. Landaas notes that stone in a ureter is different in etiology and prognosis from stone in a kidney; while the latter occurs with approximately equal frequency in the two sexes, stone in a ureter develops far oftener in men than in women.

New Work on Tuberculosis of the Spine

Dr. Ivar Alvik, formerly resident senior medical officer of the Martina Hansen Hospital near Oslo, analyzed the histories of 507 patients who were treated for tuberculous spondylitis in the Martina Hansen Hospital between April 15 and June 30, 1946. After an observation period of more than two years, he found that 78.75 per cent of the patients who had been operated on and who were alive on reexamination were fully fit for work. The corresponding figure for the patients given

conservative treatment was only 62.34 per cent. The patients who were operated on returned to full time work after discharge sooner than the patients given conservative treatment. A new destructive process in the spine was seen after discharge from the hospital in as great a proportion as 19 per cent. By the end of the observation period, 17.75 per cent of the patients in the original group had died, the most frequent cause of death being tuberculous meningitis. Pulmonary tuberculosis, sinuses with mixed infections and renal tuberculosis came next in this order of frequency as causes of death.

One of the most remarkable changes during this century with regard to tuberculosis of the bones and joints concerns its age distribution. As Dr. Alvik points out, this form of tuberculosis was regarded far into the present century as being essentially a disease of childhood. In Norway tuberculosis of the bones and joints in children seems now to have become comparatively rare. For example, by the end of 1945, after it had been in operation for about ten years, the Martina Hansen Hospital had admitted 1,601 patients, 1,116 of whom had tuberculosis of the bones and joints. Of these patients only 172 (16.4 per cent) were under the age of 15. Dr. Alvik attributes the decline in the frequency of skeletal tuberculosis in childhood largely to the decline in the rate of incidence of tuberculosis infection at this age. He also finds that tuberculous spondylitis often develops soon after the primary infection.

Shortage of Motor Cars

The importation of new motor cars from abroad has practically ceased because of difficulties over the dollar exchange. The Norwegian Medical Association repeatedly has requested the authorities to make special provision for cars for doctors, many of whom must go without or content themselves with obsolete models. However, the government department concerned hitherto has not shown any willingness to provide doctors with the necessary dollar credits.

BRAZIL

(From Our Regular Correspondent)

RIO DE JANEIRO, Sept. 10, 1949.

Cancer in Brazilian Cities

During 1948, 1,682 deaths from cancer were registered in Rio de Janeiro, which is an annual death rate of 84.0 per hundred thousand population. This is an increase in the mortality rate, as it was 75.3 for 1947 and 73.2 for 1946. The mean death rate for the ten year period 1938-1947 was 68.4 per hundred thousand, which is an increase over the figures for the previous three decades (1908-1917, 38.5 per hundred thousand; 1918-1927, 42.8 per hundred thousand, and 1928-1937, 50.8 per hundred thousand). During the last forty-five years, deaths from cancer increased from 35.9 per hundred thousand in 1903 to 84.0 per hundred thousand in 1948, which is a total increase of 134 per cent, or an average increase of 3 per cent per annum. The increase varied in different age, race and nationality groups. In the various age groups the increase was as follows: 0-19 years, 179.4 per cent; 20-39 years, 89.3 per cent; 40-59 years, 94.7 per cent; 60-79 years, 89.3 per cent, and 80 years and over, 197.9 per cent. While the cancer mortality rate for the nonwhite population showed an increase of 110.9 per cent, that for the white population was 154.8 per cent. For the different nationalities the percentage increase was: Anglo-Americans, 308.0 per cent; Germans, 238.8 per cent; Spaniards, 231.0 per cent; Portuguese, 145.6 per cent; Brazilians, 144.0 per cent, and Italians, 92.4 per cent.

The statistical returns for other large cities of Brazil in 1948 offer equally interesting information: Belem (population 205,000), state of Pará, 55.6 per hundred thousand; Fortaleza (population 200,000), state of Ceará, 31.6 per hundred thousand; Recife (population 388,000), state of Pernambuco, 67.4 per hundred thousand; Salvador (population 292,000), state of Bahia, 76.8 per hundred thousand; Vitoria (population 50,000), state of Espirito Santo, 79.2 per hundred thousand; São Paulo (population 1,616,000), state of São Paulo, 105.5 per hundred thousand; Curitiba (population 165,000), state of Paraná, 91.6 per hundred thousand; Porto Alegre (population 300,000), state of Rio Grande do Sul, 126.3 per hundred thousand, and Belo Horizonte (population 292,000), state of Minas Gerais, 98.8 per hundred thousand. The increase of the death rate from cancer in these cities during the last sixteen years may be illustrated by the average annual increase, which was as follows: Belem, 6.2; Fortaleza, 0.8; Recife, 1.4; Salvador, 4.2; Vitoria, 3.3; São Paulo, 4.7; Curitiba, 3.8; Porto Alegre 5.0, and Belo Horizonte, 4.6. In most instances the increased cancer mortality rate, particularly the increase in the last years, is significantly associated with a high percentage of European stock in the population, a fact particularly noticeable in São Paulo, Curitiba and Porto Alegre, in Southern Brazil.

As a first move to face this problem of a high and increasing incidence of cancer, the federal government decided a few years ago to create, in the National Department of Health, a division of cancer, at the head of which was placed Dr. Mario Kroeff, an able surgeon and devoted to the fight against the scourge. Since then the division of cancer began a nationwide movement of propaganda and education and inaugurated, at Rio de Janeiro, a cancer center, with an outpatient clinic and a small hospital, while preparing plans for a new and larger cancer hospital. A recent report from Dr. Kroeff describes the work of the cancer center, which attended, up to Dec. 31, 1948, a total of 2,531 persons, among whom 1,423 were recognized as affected by cancer (581 male, or 41.1 per cent, and 832 female, or 58.9 per cent). Of this total of 1,413 cancerous patients, 426 were attended at the clinic and 987 at the hospital. Their age distribution was as follows: 0-4 years, 6 patients (0.4 per cent); 5-9 years, 7 patients (0.5 per cent); 10-14 years, 7 patients (0.5 per cent); 15-34 years, 127 patients (9.0 per cent); 35-54 years, 609 patients (43.7 per cent); 55-74 years, 581 patients (41.1 per cent), and 75 years and over, 76 patients (5.4 per cent). Irradiation was used for the treatment of 512 patients with cancer in the following locations: skin 156, uterus 131, breast 79, mouth 43, bones 22, digestive tract 19 and other organs 62. Radium was used for the treatment of 190 patients with cancer of the uterus (91), mouth (48), skin (38) and other organs (13).

Under the influence of the division of cancer several other centers are being started in the various states of Brazil, as well as women's leagues to combat cancer.

Improvement of Apicolysis by Ligation of the Lung Apex

Dr. Fernando Paulino, head of the surgical department of the Rio de Janeiro Policlinica Geral, published a report on the results obtained in 22 patients on whom he performed thoracoplasties with total apicolysis which were completed by ligating the lung apex, a technic devised by him. When the total apicolysis is completed a maximum collapse of the apex is obtained, but it is difficult to maintain this optimal condition as the stump tends to reexpand during the following weeks with reduction of the results of the operation. In several instances the reexpansion of the stump was so complete that it was necessary to perform new operations which led to destruction of other ribs and to further deformation of the chest. To prevent reexpansion of the stump, Dr. Paulino tried the circular ligation of the lung apex, to turn the maximum collapse obtained immediately after the operation into a permanent condition of atelectasis. This secures complete liberation of the upper part of the lung and relaxation of the area of the draining bronchium, which are the main factors influencing the closing of the pulmonary cavities by surgical methods. The author makes three successive ligatures at different levels, beginning with the highest; during this time an assistant aspirates the secretions discharged into the trachea by compression of the cavity.

Correspondence

HEALTH LAWS GOVERNING ARTIFICIAL INSEMINATION

To the Editor:—Since the subject of artificial donor insemination has been receiving so much publicity in recent years, both here and abroad, I should like to call attention to some laws which are, in effect, regulations and amendments to the Sanitary Code of the City of New York. They were enacted by the Board of Health of the City of New York following an incident where nonmedical persons revealed that they were in the process of organizing a "semen bank" for purposes of providing semen for human artificial insemination. The health body of the city of New York, at once realizing the possible ill effects of untrained and unscientific participation in such a delicate process, adopted regulations controlling human artificial insemination. The following regulations have been effective since July 1, 1947.

The portion known as Section 112, Artificial Human Insemination, provides, "No person other than a physician duly licensed to practice medicine in the State of New York shall collect, offer for sale, sell or give away human seminal fluid for the purpose of causing artificial insemination in a human being. . . ."

In addition, six clauses were included under this section of the new law. (1) Donors "shall have a complete physical examination with particular attention to the genitalia at the time of the taking of such seminal fluid." (2) A donor "shall have a standard serological test for syphilis and a smear and culture for gonorrhea not less than one week before such seminal fluid is obtained." (3) "No person suffering from any venereal diseases, tuberculosis or infection with brucella organisms, shall be used as a donor of seminal fluid. . . ." (4) "No person having any disease or defect known to be transmissible by the genes shall be used as a donor of seminal fluid. . . ." (5) "Before artificial human insemination is undertaken, both the proposed donor and the proposed recipient shall have their blood tested with respect to the Rh factor. . . ." The regulation further points out that if the female recipient is negative for the Rh factor "no semen shall be used for artificial insemination other than from a donor of seminal fluid whose blood is also negative for this factor." (6) The regulations make it mandatory for the physician performing human artificial insemination to keep records which shall show: (1) the name of the physician, (2) the name and address of the donor, (3) the name and address of the recipient, (4) the results of the physical examination and the results of the serologic examinations, including the tests for the Rh factor, and (5) the date of the artificial insemination.

The Board of Health of the City of New York regards these records "as confidential and shall not be open to inspection by the public or by any person other than the Commissioner of Health, an authorized representative of the Department of Health and such other persons as may be authorized by law to inspect such records." The regulations protect the identity of all persons by stating that persons authorized by law to inspect such records "shall not divulge any part of any such records so as to disclose the identity of the persons to whom they relate except as provided by law."

Whether or not these regulations are completely satisfactory remains to be seen. It was unquestionably the object of the Board of Health of the City of New York to make certain that the procedure of human artificial insemination remains an entirely medical one, free from the possibility of transmitting disease or pathologic state which unqualified, untrained and commercially minded persons may bring to it.

The existence of such an ordinance in the sanitary code of the largest city in the world emphasizes the importance of clarification by governing bodies of the status of artificial insemination, the legitimacy of the child, the status of the husband and the role played by the physician.

ABNER I. WEISMAN, M.D., New York.

REFRIGERATION IN EMBOLISM

To the Editor:—In THE JOURNAL of Oct. 8, 1949, two articles on embolism involving the lower extremities followed the usual custom of ignoring refrigeration. Cold simultaneously inhibits pain, shock, thrombosis and tissue devitalization. Even when the arterial occlusion is in the pelvis or abdomen, packing of the legs in ice should follow diagnosis as an immediate routine in the hospital or, if necessary, at home. This method may keep the tissues viable for days or weeks, thus permitting delayed operation in cardiac or other critical conditions. After operation, moderate cooling serves as an adjuvant to anticoagulants in preventing thrombosis of small vessels. These and other considerations warrant repetition of the previous advice, "Refrigeration can extend the time limits and improve the results of embolectomy" (*Am. J. Surg.* **68**: 170, 1945; *J. Internat. Coll. Surgeons* **8**: 438, 1945; J. A. M. A. **130**: 185 [Jan. 26] 1946).

LYMAN WEEKS CROSSMAN, M.D.,
Baytown, Texas.

Medical Examinations and Licensure

COMING EXAMINATIONS AND MEETINGS

NATIONAL BOARD OF MEDICAL EXAMINERS

NATIONAL BOARD OF MEDICAL EXAMINERS. *Part III.* Boston, Chicago and New York, January. *Parts I and II,* Feb. 13-15. Centers where there are approved medical schools and five or more candidates. Exec. Sec., Mr. E. S. Elwood, 225 S. 15th Street, Philadelphia 2.

EXAMINING BOARDS IN SPECIALTIES

AMERICAN BOARD OF ANESTHESIOLOGY: *Written.* Various locations. July 21. *Oral.* Philadelphia, April 23-27, Chicago, October 8-12. Sec., Dr. Curtiss B. Hickcox, 745 Fifth Ave., New York 22.

AMERICAN BOARD OF INTERNAL MEDICINE: *Oral.* Chicago, Feb. 8-10. Boston, April 13-15. San Francisco, June 21-23. The oral examinations in the subspecialties will be held at the same time and places. Final date for filing applications for all examinations is Jan. 1. Asst. Sec., Dr. William A. Werrell, 1 West Main Street, Madison 3, Wis.

AMERICAN BOARD OF NEUROLOGICAL SURGERY: *Oral.* Chicago, June 3. Final date for filing applications is Jan. 1. Sec., Dr. W. J. German, 789 Howard Ave., New Haven, Conn.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY, INC. *Written and Reviews of Case Histories. Part I.* Various Centers. Feb. 3. *Oral Part II.* Atlantic City, May 21-28. Sec., Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh.

AMERICAN BOARD OF OPHTHALMOLOGY: Boston, April. Sec. Dr. Edwin B. Dunphy, 56 Ivie Rd., Cape Cottage, Maine.

AMERICAN BOARD OF ORTHOPAEDIC SURGERY. *Part II,* New York City, Feb. 9-10. Sec. Treas., Dr. Harold A. Sofield, Room 1856, 122 S. Michigan Ave., Chicago.

AMERICAN BOARD OF OTOLARYNGOLOGY: *Oral.* San Francisco, May. Chicago, October. Sec., Dr. Dean M. Lierle, University Hospital, Iowa City.

AMERICAN BOARD OF PEDIATRICS: *Written.* Various locations. Jan. 12. *Oral.* Richmond, Va., Feb. 10-12.; Philadelphia, March 31-April 2; San Francisco, June 23-25. Exec. Sec., Dr. John McK. Mitchell, 6 Cushman Road, Rosemont, Pa.

AMERICAN BOARD OF PLASTIC SURGERY: *Oral.* May-June. Sec., Dr. Louis T. Byars, 4647 Pershing Avenue, St. Louis, Mo.

AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY: Spring Examination. Date and location of examination to be announced later. Final date for filing applications is Feb. 1. Sec., Dr. F. J. Braceland, 102-110 Second Ave. S.W., Rochester, Minnesota.

AMERICAN BOARD OF UROLOGY: *Oral and Clinical.* Chicago, Feb. 11-15. Sec., Dr. Harry Culver, 7935 Sunnyside Road, Minneapolis 21.

BOARD OF THORACIC SURGERY: *Written.* Various locations. Jan. 16. Sec., Dr. William M. Tuttle, 1151 Taylor Ave., Detroit 2, Mich.

BOARDS OF MEDICAL EXAMINERS

ALABAMA: *Examination.* Montgomery, June 27-29. Sec., Dr. D. G. Gill, 519 Dexter Avenue, Montgomery.

ALASKA: Juneau, March 7. Sec., Dr. W. M. Whitehead, Box 140, Juneau.

COLORADO: Denver, Jan. 3-6. Sec., Dr. George H. Gillen, 831 Republic Building, Denver.

CONNECTICUT: * *Examination.* Hartford, March 14-15. Secretary to the Board, Dr. Creighton Barker, 160 St. Ronan Street, New Haven. *Homeopathic.* Derby, March 9-10. Sec., Dr. Donald A. Davis, 38 Elizabeth Street, Derby.

DELAWARE: *Examination.* Dover, Jan. 10-12. *Reciprocity.* Dover, Jan. 19. Sec., Dr. J. S. McDaniel, 229 State Street, Dover.

GEORGIA: *Examination.* Atlanta and Augusta, June. *Endorsement.* Atlanta, June. Sec., Mr. R. C. Coleman, 111 State Capitol, Atlanta 3.

GUAM: *Endorsement.* Agana, last Friday of each month. Sec., Capt. C. K. Youngkin, Dept. of Public Health, Guam, % F.P.O., San Francisco.

HAWAII: *Examination.* Honolulu, Jan. 9-12. Sec., Dr. I. L. Tilden, 881 S. Hotel St., Honolulu.

IDAHO: Boise, Jan. 9. Exec. Sec., Mr. Armand L. Bird, 305 Sun Building, Boise.

INDIANA: *Examination.* Indianapolis, June. Sec., Dr. Paul R. Tindall, 1138 K. of P. Bldg., Indianapolis.

KENTUCKY: Louisville, Dec. 12-14. Sec., Dr. Bruce Underwood, 620 South Third Street, Louisville 2.

MAINE: Portland, March 14-15. Sec., Dr. Adam P. Leighton, 192 State Street, Portland.

MARYLAND: *Examination.* Baltimore, Dec. 13-16. Sec., Dr. Lewis P. Gundry, 1215 Cathedral St., Baltimore 1. *Homeopathic. Examination.* Baltimore, Dec. 13-14. Sec., Dr. John A. Evans, 612 West 40th St., Baltimore.

MINNESOTA: * Minneapolis, Jan. 17-19. Sec., Dr. J. F. DuBois, 230 Lowry Medical Arts Building, St. Paul 2.

MISSISSIPPI: *Reciprocity.* Jackson, December. Sec., Dr. Felix J. Underwood, State Board of Health, Jackson 113.

MISSOURI: *Examination.* Jefferson City, Feb. 9-11. *Reciprocity,* Feb. 4. Exec. Sec., Mr. John A. Hailey, Box 14, State Capitol Building, Jefferson City.

NEW HAMPSHIRE: Concord, March 8-9. Sec., Dr. John S. Wheeler, 107 State House, Concord.

NEW YORK: Albany, Buffalo, New York and Syracuse, Jan. 31-Feb. 3. Sec., Dr. Jacob L. Lochner, 23 S. Pearl Street, Albany 7.

NORTH CAROLINA: *Endorsement.* Raleigh, Jan. 23. Sec., Dr. Ivan Procter, 226 Hillsboro St., Raleigh.

NORTH DAKOTA: *Examination.* Grand Forks, Jan. 4-6. *Reciprocity.* Jan. 7. Sec., Dr. C. J. Glaspel, Grafton.

OHIO: *Examination.* Columbus, Dec. 12-14. Sec., Dr. H. M. Platter, 21 W. Broad St., Columbus.

OKLAHOMA: * *Examination.* Oklahoma City, June 7-8. Sec., Dr. Clinton Gallaher, 813 Braniff Building, Oklahoma City.

OREGON: * *Examination.* Portland, Jan. 5-7. *Reciprocity.* Portland, Jan. 20-21. Exec. Sec., Mr. Howard I. Bobbitt, 609 Failing Building, Portland 4.

PENNSYLVANIA: *Examination.* Philadelphia or Harrisburg, January. Acting Sec., Mrs. Marguerite G. Steiner, 351 Education Building, Harrisburg.

PUERTO RICO: *Examination.* Santurce, March 7. Sec., Mr. Luis Cueto Coll, Box 3717, Santurce.

RHODE ISLAND: * *Examination.* Providence, Jan. 5-6. Chief, Division of Professional Regulation, Mr. Thomas B. Casey, 366 State Office Building, Providence.

SOUTH DAKOTA: * Sioux Falls, Jan. 17. Sec., Dr. C. E. Sherwood, 300 First National Bank Building, Sioux Falls.

TENNESSEE: * *Examination.* Memphis, Dec. 21-22. Sec., Dr. H. W. Qualls, 1635 Exchange Building, Memphis 3.

UTAH. *Examination.* Salt Lake City, June. Dir., Dr. Frank E. Lees, 324 State Capitol Building, Salt Lake City.

WASHINGTON: * Seattle, January. Director, Department of Licenses, Mr. Edward C. Dohm, Olympia.

WEST VIRGINIA: *Examination.* Charleston, Jan. 3-5. Sec., Medical Licensing Board, Dr. N. H. Dyer, State Capitol, Charleston.

WISCONSIN: * *Examination.* Madison, Jan. 10-12. Sec., Dr. C. A. Dawson, River Falls.

* Basic Science Certificate required.

BOARDS OF EXAMINERS IN THE BASIC SCIENCES

ARIZONA: *Examination.* Tucson, Dec. 20. Sec., Mr. Francis A. Roy, Science Hall, University of Arizona, Tucson.

FLORIDA: *Examination.* June 3. Sec., Mr. M. W. Emmel, University of Florida, Gainesville.

MICHIGAN: *Examination.* Ann Arbor and Detroit, Jan. 13-14. Sec., Miss Eloise LeBeau, 101 N. Walnut Street, Lansing.

NEBRASKA: *Examination.* Omaha, Jan. 10-11. Director, Bureau of Examining Boards, Mr. Oscar F. Humble, Room 1009, State Capitol Building, Lincoln 9.

NEW MEXICO: *Examination.* Santa Fe, December 18. Sec., Miss Marguerite Kilkenny, 110 W. Houghton Street, Santa Fe.

RHODE ISLAND: *Examination.* Providence, Feb. 8-9. Chief, Division of Professional Regulation, Mr. Thomas B. Casey, 366 State Office Building, Providence.

OKLAHOMA: *Examination.* Oklahoma City, April 11. Sec., Dr. Clinton Gallaher, 813 Braniff Building, Oklahoma City.

TENNESSEE: *Examination.* Memphis, Dec. 30-31. Sec., Dr. O. W. Hyman, 874 Union Avenue, Memphis 3.

WASHINGTON: Seattle, January. Sec., Department of Licenses, Mr. Edward C. Dohm, Olympia.

Bureau of Medical Economic Research

MEDICAL ECONOMIC REVIEWS AND ABSTRACTS

Prepared by the Staff of the Bureau of Medical Economic Research

The Return of Adam Smith. By George S. Montgomery Jr. Cloth. Price, $2.50. Pp. 147. Caxton Printers, Ltd., Caldwell, Idaho, 1949.

The author feels that the present cry for promotion of the general welfare at the expense of freedom for the individual is folly and that current attempts to force a redistribution of wealth by fiscal policies and regulation of enterprise are stymying the efforts of productive persons. His solution to America's economic problems is ever expanding production. He insists, ". . . only under a system of individual freedom of enterprise and thrift can nations approach their inherent potentialities in striving for well-being and opulence."

The author's ideal seems to be the society conceived by Adam Smith. He attacks those who have maintained that Smith's theories cannot be applied to our present society because the industrial revolution has changed the nature of capitalistic enterprise. He reiterates the belief that a more complicated society can still be run more effectively by persons operating in their own interest than by regulations from a government authority. He marvels at the increased physical ease in making a living and points out that division of labor has made it possible for the individual in a free country to "rely with confidence on an uninterrupted and adequate supply of the necessities of life as a result of the activities of his fellow men" (p. 25).

The author deplores the attitude of younger generation Americans who seem to embrace socialism as the answer to economic dislocation. He tends, however, to treat the whole of youth's urge to reform as the result of calculated scheming by a few determined "social coercionists."

The choice of the title of this book is unfortunate in that it suggests retrogression and conservatism rather than suggesting the possibilities of a better life by going forward to Adam Smith's dynamic society in which the individual would have full opportunity to develop his abilities unfettered by regimentation.

The author's arguments against socialism are the familiar ones of inefficiency, job slavery, increasing scarcity and suppression of initiative. Despite the truths about human nature discussed and the passionate appeal for freedom for the individual, the author's observations are not sufficiently incisive to support his thesis. He neither challenges the "social coercionists" to show how monopoly would be cured by a still bigger government nor attempts to present a unified core of principles on which to build a better economic society. He does not point out that new forms of competition have arisen since the days of Adam Smith—for example, obsolescence of expensive machinery resulting from new discoveries. Nor does he explain to youth that the newest class struggle, "the old versus the young," has largely displaced the nineteenth century struggle between labor and capital. The tract remains a series of digressions rather than an analysis of society.

Your Community and the Nation's Health Progress. Proceedings of Fourth National Conference on Social Security. American Economic Security Vol. VI., No. 4. Paper. Price, $1. Pp. 98. Chamber of Commerce of the United States of America, Washington 6, D. C., 1949.

The theme of the fourth National Conference on Social Security of the Chamber of Commerce of the United States, held in Cincinnati, Ohio, on April 7, 1949, was "Has Your Community Kept Pace with the Nation's Health Progress?" This special issue of *American Economic Security* contains the major speeches of the conference, abstracts of discussions and a few pages of current social security events and data.

In the opening address Earl O. Shreve, president of the Chamber of Commerce of the United States, emphasized that "the local community is the focal point for efforts to improve the health of those residing in the community." At present our nation is one of the healthiest in the world, but much can still be accomplished.

Mr. A. D. Marshall, moderator of the conference, expressed his conviction that health development, just as social and economic development in the United States, has been the sum of progress in thousands of local communities. The possibility of socialized medicine is perhaps the most serious threat to continued health progress in this country. Each person has a responsibility in helping to continue the upward trend in our rapid health progress of the past fifty years.

Other speakers pointed out the remarkable accomplishments which medical research has made under the private enterprise system, the contributions of hospitals to community health and the advances made in the field of industrial health. Also mentioned were the contributions made by federal, state and local units of the governmental public health services. The speaker emphasized that when local governments fail to meet the responsibility of providing care for the indigent in their communities, pressure becomes stronger on the federal government for a compulsory health insurance program.

Dr. James R. Miller pointed out that too much emphasis has been put on the payment of doctor's bills, as if the solution of this difficulty would be the solution to our whole health program. As also pointed out by other speakers, adequate medical care and good health are not synonymous. The cost of medical care is only a part of the total cost of good health. Providing for good health necessitates adequate sanitation and housing, communicable disease control, good personal health habits, balanced diet and other factors. As these are primarily individual and community problems, mass socialized medicine could not provide good health.

Possibly the section of most value to the majority of readers is the section on health progress in the local community. Three community health programs were cited as examples of the potentialities of coordinated programs for community health. Dr. J. P. Harley, in speaking of the industrial health program of Williamsport, Pa., emphasized that it has been through voluntary effort that progress has been made in health education, preventive medicine, labor-management relations and reducing absenteeism due to illness. Furthermore, all these could be adversely affected by compulsory health insurance.

The accomplishments under the health program of the Atlanta Chamber of Commerce are impressive and could well be examined by other communities. It has been suggested that the annual health week, with its purpose of making every citizen aware of the importance of good health and annual physical checkups, be on a national scale.

Through the work of the Farrell, Pa., health committee, Mercer County became the first county in the state to have its own mobile x-ray unit. Antepartum education, child welfare, maternal care, sanitary facilities and venereal disease education are important aspects of the Farrell health program, a program which shows what can be done when the people of a community accept leadership and responsibility in the field of health.

Another fact brought out was that no single health plan met the needs of employees of three subsidiary companies of one large corporation even though the companies are in the same section of the state.

The various speakers pointed out the importance of coordination of the activities of the several agencies and persons interested in this phase of community life, in order to prevent duplication of efforts. It has been urged that efforts to "improve the health of the nation" should begin at the immediate community level rather than at the federal level, for the latter might result in the weakening of or the entire disappearance of community initiative and responsibility. The conference attempted to discover what has been done, what can be done and what should be done to continue to bring improved health to the people.

In concluding, the moderator said "It behooves us to go back to our local communities and make sure that this free enterprise system, which has worked so well in the past, continues to make such great strides in the field of health that the social planners will give pause. Only in this way can we be sure that the progress of the last half-century toward better health will continue. Only in this way can we be sure that socialized medicine—which once started probably can never be halted—will not become the entering wedge for a planned economy directed by federal bureaucrats."

Bureau of Legal Medicine and Legislation

MEDICOLEGAL ABSTRACTS

Hospitals: Liability for Infection Following Blood Donation.—The plaintiffs, husband and wife, sued the Shannon West Texas Memorial Hospital and Baylor University for damages sustained by the plaintiff wife due to an infection in her arm. From a judgment in the trial court in favor of the defendants, the plaintiffs appealed to the court of civil appeals of Texas.

An arrangement had been made between Baylor University and the Shannon Hospital whereby blood plasma would be furnished to the hospital by the university. Under this arrangement the hospital received blood donations at San Angelo and the blood was shipped to Baylor University at Dallas, where it was processed into blood plasma and returned to the hospital. For the purpose of receiving blood donations, Baylor University sent to the hospital what is termed "a collecting unit" containing a bottle, towels, tubing and two needles, one of which went into the bottle the blood was drawn into and the other into the donor's arm. The unit also contained a small hypodermic needle used to deaden the donor's arm before the larger needle was inserted to draw the blood. This collecting unit and its contents were sterilized and packed at Baylor and then sent to the hospital, where it was kept until used. Neither the unit nor its contents were resterilized at the Shannon Hospital.

The plaintiff wife (referred to as plaintiff), in response to a request therefrom, went to the defendant hospital to give a blood donation. The superintendent directed her to a room where nurses swabbed her arm, used a hypodermic needle to deaden the arm and then inserted a larger needle into her arm for the purpose of drawing the blood. Great difficulty was encountered in inserting the needle into the vein, and that procedure took more than six minutes and was very painful. After completing the phlebotomy (blood donation) the nurses taped gauze on the plaintiff's arm, gave her a band-aid® and told her to put the band-aid® on her arm when she took the gauze off. Following the donation, the plaintiff went shopping for a short time and then returned to her home, which was about an hour's drive from the hospital. She testified, "I suffered from the time they injected that needle into my arm up to this present day; I haven't been out of pain day or night and I suffered all the way home, and by the time I got home there was a place that big around that was red and puffed up there and it felt hot and feverish, and I was up all night long taking aspirin for the pain in my arm; I didn't sleep any that night." After the blood donation, the plaintiff was treated by several doctors, and about a week later she reported to the Shannon Hospital, where she was hospitalized for twelve days under the care of Dr. Kunath. It was not disputed that the plaintiff suffered serious injury.

The plaintiff contended that the Shannon Hospital was liable for her injuries because it furnished a nonsterile needle for use in the phlebotomy and that Baylor University was liable because the needle was contaminated at the time it was furnished to the hospital for such use.

In order to sustain her alleged cause of action, said the court, the plaintiff must show, by competent evidence, that the needle used was, at the time of its use, infected or contaminated and that such needle was a proximate cause of the injuries. It is not enough merely to show that the plaintiff's arm became infected and that she sustained injuries and damages. Furthermore, "What is an infection and whence it came are matters determinable only by medical experts," said the court.

At the trial a number of witnesses testified, three doctors and four nurses among them. We have carefully examined the entire record, said the court of appeals, and, applying the above rules, we find no competent evidence as to the source of the wife's infection. Dr. Kunath said: "I would have no way whatever to determine at what time the infection was introduced."

Another physician said that in the absence of making a culture of the things used ". . . you can't tell the origin or source of infection." The third physician, Dr. Hill, testified that the blood that came from outside Baylor was segregated and put on a special shelf, that tests were made to determine whether there was any contamination in the blood and that this was done under his supervision. He further said that, assuming the needle used in extracting the plaintiff's blood had been contaminated, the contamination should have shown up in the culture of the blood and that the blood that came in from Shannon on Aug. 21, 1946, did not show any contamination. (The evidence showed that the plaintiff's blood was shipped from San Angelo August 20 and should have been received by Baylor Aug. 21, 1946.) Dr. Hill expressed his opinion that the infection in the plaintiff's arm was more likely to have been received after the phlebotomy than in the course of such phlebotomy, in view of the fact that he had cultural evidence that there was not contamination on the needle used. No medical expert fixed the source of the infection.

Since the infection is not shown by any competent evidence to have been caused by the acts of the defendants, said the court, the plaintiff has failed to discharge the burden of proving the needle used in the phlebotomy was infected and that the infected needle was a proximate cause of the injuries. The evidence goes no further, continued the court, than to show that the injuries sustained by the plaintiff could have resulted from the use of a nonsterile needle. The court of civil appeals then quoted from a prior Supreme Court of Texas decision, which said, "The proof must establish causal connection beyond the point of conjecture. It must show more than a possibility. Verdicts must rest on reasonable certainty of proof. . . ."

Accordingly the judgment of the trial court in favor of the defendants was affirmed.—*Brown et ux. v. Shannon West Texas Memorial Hospital, 222 S. W. (2d) 248 (Texas, 1949).*

Medical Practice Acts: Revocation of License for Narcotic Addiction.—The Board of Regents accepted and approved a report of its Medical Committee on Grievances which found that the petitioner, a physician, was addicted to the use of narcotic drugs and on the basis of this report entered an order directing the suspension of the petitioner's license which was accordingly issued by the State Commissioner of Education on behalf of the State Education Department and the Board of Regents. On appeal to the appellate division, the determination of the Board of Regents and the order of the Commissioner of Education were annulled, so that the Board of Regents and the Commissioner of Education appealed to the Court of Appeals of New York.

The Education Law provides:

"The license or registration of a practitioner of medicine may be . . . suspended . . . upon decision after due hearing in any of the following cases: . . . (*c*) That a physician is an habitual drunkard, or is or has been addicted to the use of morphine, cocaine or other drugs having similar effect, or has become insane."

The construction that should be put on the word "addicted" as employed by the Education Law was the single question to be determined by the Court of Appeals.

"Addicted," said the Court of Appeals, is not a word of art. It is not a technical word at all. According to the lexicographers, it means strongly disposed to some taste or practice or habituated, especially to drugs. For years the petitioner used large quantities of morphine, cocaine and meperidine. During the period 1945-1946, he procured from six doctors prescriptions for (*a*) 3,832 one-quarter grain (15 mg.) and 12 one-half grain (30 mg.) morphine sulfate hypodermic tablets; (*b*) 96 one-quarter grain, 896 one-half grain and 1,588 one grain (60 mg.) codeine hypodermic tablets; (*c*) 8 pantopon® tablets, and (*d*) 3,032 cc. of meperidine solution. The petitioner conceded that he consumed those drugs. More than that, in the period 1941-1946 he used narcotics in amounts which at the hearing were characterized by him as "heroic" and by one of his physicians as "excessive," although during that time he suffered acute physical pain. On the basis of this evidence, said the Court of Appeals, the suspension of the medical license of the petitioner was fully warranted—unless the word "addicted" in the aforementioned text of the Education Law is not to be construed in its common and popular meaning.

As interpreted by the appellate division, the text of the Education Law does not sanction suspension of a medical license for addiction except on proof of "some deleterious effect or a deterioration" in a practitioner "rendering it unsafe or improper for him to practice his profession." We cannot agree to that decision, said the Court of Appeals. The appellate division read into the text of the state Education Law that part of the United States Public Health and Welfare Law which declares an "addict" to be any person who is or has been so far addicted to the use of habit-forming narcotic drugs "as to have lost the power of self-control with reference to his addiction." This technic of the court was, we think, a misapplication of the rule as to the exposition of one statute by the language of another. In the relevant New York legislation, the word "addicted" has had a place for more than four decades. The Federal Public Health and Welfare Law became law in 1944. Hence by an attempt here to fasten federal legislation to a state statute the court imposed on the New York statutory use of the word "addicted" a meaning which it certainly did not have for a generation or more theretofore. It is a strong thing so to read into a statute words which are not there, and, in the absence of a clear necessity, it is wrong thing to do. Nor would such a construction be beneficial in this instance, the court continued. For as a matter of practical good sense, a physician who daily stands in need of inordinate supplies of narcotic drugs ought not to be allowed to practice his profession, no matter how blameless he may be and irrespective of the extent to which he may exhibit any debasement. In short, the Court of Appeals concluded, we see no ground either in the history of the aforementioned provision of the Education Law or in its context for reading it otherwise than in its natural and usual sense.

Accordingly, the order of the appellate division was reversed and the determination of the Board of Regents and the order of the Commissioner of Education suspending the petitioner's license were reinstated.—*Palmer v. Spaulding, Commissioner of Education, 87 N. E. (2d) 301 (N. Y., 1949).*

Medical Motion Pictures

FILM REVIEWS

The Mechanism of Infection and Immunity. 16 mm., color, silent, 335 feet, showing time ten minutes. Prepared in 1948, by H. A. Heise, M.D., and F. H. Haessler, M.D., Milwaukee. Procurable on loan from the authors, 425 East Wisconsin Avenue, Milwaukee 2.

This motion picture attempts to show by animated diagrams in symbolic form the authors' theory of immunology. It presents the reactions of antigen and antibody and discusses incubation periods, inflammation, allergic sensitization, flare reaction, focal infection and rationale of vaccine therapy.

There may be objection to the premise that antibodies are formed in the skin, since this is an exceedingly controversial subject; most authorities admit they do not know where antibodies are formed in the skin, although the concensus is that they are formed in the reticuloendothelium.

There also may be difference of opinion concerning the authors' claim that antigens are not harmful until they come in contact with antibodies. It is known that in many instances the reaction is harmless and that it is only when sensitizing antibodies are present that the reaction is harmful.

Most audiences would have difficulty in fully appreciating this film unless it were used to illustrate a lecture on the subject. The authors have prepared supporting data, which accompanies the film. The unique animated sequences are well done.

POSTGRADUATE CONTINUATION COURSES FOR PHYSICIANS

Compiled by the Council on Medical Education and Hospitals for the Period January 1, 1950 to July 15, 1950

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Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	ALLERGY		
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	One month Personal Course in Allergy	Full time, 1 month, first Monday of Feb., March, April and May	$200.00
	Six month Personal Course in Allergy	Full time, 6 months, arranged	500.00
	Personal Course in Allergy and Related Conditions	Part time, 10 weeks, April 19	125.00
University of Michigan Medical School, Dept. of Postgraduate Medicine, Ann Arbor, Mich. At: University Hospital	Allergy	Full time, 5 days, April 17 to 21	Not given
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich. At: Receiving Hospital	Allergy Clinic	Part time, 12 weeks, December to March	$ 25.00
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			
At: Beth El Hospital	Allergy (I)	Part time, 10 weeks, April	30.00
At: Kings County Hospital	Allergy (II)	Part time, 8 weeks, April	20.00
At: Kings County Hospital	Applied Immunologic Procedures in Children	Part time, 10 weeks, April	20.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York At: Mt. Sinai Hospital	Medicine PM 36 Allergy	Full time, 4 days, March 13 to 16	40.00
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	543-A Allergy	Part time, 8 sessions, Jan. 6 to Feb. 24	35.00
	5415-B Allergy	Full time, 3 weeks, March 20 to April 7	225.00
	68C1 Course in Allergy of the Eyes and Upper Respiratory Tract [9]	Part time, 1 month, Jan. 9 to Feb. 3, Feb. 27 to March 24, April 24 to May 19	100.00
Cornell University Medical College, 1300 York Ave., New York 21	Surgical Anatomy	Full time, 1 month, June 1 to 30	200.00
Thomas Clinic, 2031 Monument Ave., Richmond 20, Va.	Clinical Allergy	Full time, 12 months, Jan. 1 and July 1	None
	ANATOMY		
Yale University School of Medicine, 333 Cedar St., New Haven, Conn. At: Connecticut State Hospital	Anatomy S-202 Neuroanatomy and Neural Basis of Behavior	Part time, 5 sessions, Feb. 6 to March 6	15.00
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Anatomy of the Extremities on the Cadaver	Part time, 10 weeks, March 15	125.00
	Surgical Anatomy on the Cadaver	Part time, 10 weeks, March 16	125.00
University of Illinois, College of Medicine, 1853 W. Polk St., Chicago 12	Dissection	Part time, 12 weeks, quarterly	75.00
University of Maryland School of Medicine, 29 S. Greene St., Baltimore 1	General Anatomy "A"	Full or part time arranged	Arranged
	Surgical Anatomy "B"	Part time, 15 weeks, February	150.00
Harvard Medical School, 25 Shattuck St., Boston, Mass.	Neuro-Anatomy	Full time, 3 weeks, June 5 to 25	100 [1]
	Surgical Anatomy	Part time, 8 weeks, March 6 to April 29	200 [1]
University of Michigan Medical School, Dept. of Postgraduate Medicine, Ann Arbor, Mich.	Anatomy	Part time, Feb. 16 to June 1	Not given
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich.	Regional Anatomy (Extremities and Back) (Trunk) (Head and Neck)	Part time, 12 weeks, March to June	50.00 [3]
	Advanced Dissection	Part time, 12 weeks, December to March	Not given
	Surgical Anatomy	Part time, 24 weeks, December to	70.00

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	ANATOMY—Continued		
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Anatomy of the Abdomen	June Arranged	$150.00
	Applied Anatomy for the General Surgeon	Arranged	375.00
	Anatomy of the Thorax	Arranged	150.00
	Applied Anatomy for the Anesthesist	Arranged	275.00
	Applied Anatomy for the Otolaryngologist	Arranged	275.00
	Applied Anatomy of the Urogenital System	Arranged	300.00
	Anatomy for the Orthopedic Surgeon	Arranged	100.00
New York Polyclinic Medical School and Hospital, 345 West 50th St., New York 19	Head and Neck Dissection	Part time, 6 weeks, arranged	150.00
Western Reserve University, School of Medicine, Dept. of Anatomy, 2109 Adelbert Rd., Cleveland 6, Ohio	Surgical Anatomy II G	Part time, 2 to 6 months, April 30	70.00 per mo
	ANESTHESIOLOGY		
University of Colorado Medical Center, 4200 E. Ninth Ave., Denver	Postgraduate Course for General Practitioners, Resuscitation and Inhalation Therapy, Diagnostic and Therapeutic Nerve Blocking, Principles of Intravenous and Rectal Anesthesia	Full time, 1½ days, to be announced	10.00
George Washington University, School of Medicine, 1335 H St., N.W., Washington, D. C.			
At: George Washington University Hospital	Anesthesiology	Full time, 1 week, Feb. 27 to March 3	50.00
American Society of Anesthesiologists, Inc., 188 W. Randolph St., Chicago			
At: St. Francis Hospital, 114 Woodland St., Hartford, Conn.	General and Regional Anesthesia	Full time, arranged for individual requirements	None
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Two week practical Course in Spinal and Intravenous Anesthesia	Full time, 2 weeks, every 2 weeks	150.00
	One month practical Course in Inhalation Anesthesia	Full time, 1 month, first of every month	125.00
	One month practical Course in Inhalation Anesthesia (Ether, Nitrous Oxide, Ethylene Cyclopropane)	Full time, 1 month, first of every month	200.00
	Two week practical Course in Endotracheal Anesthesia	Full time, 2 weeks, every 2 weeks	150.00
Tufts College Medical School, 30 Bennet St., Boston 11, Mass.	Anesthesiology I	Part time, 4 weeks, arranged	60.00 [1]
	Anesthesiology II	Full time, 6 months, arranged	300.00 [1]
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			
At: Jewish Hospital	Anesthesiology	Part time, 6 weeks, April	30.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Clinical Anesthesiology	Full time, 3 months, arranged	200.00
New York Polyclinic Medical School and Hospital, 345 West 50th St., New York 19	Applied Anesthesia	Full time, 3 months, January and April	300.00
New York State Society of Anesthesiologists, 745 Fifth Ave., New York			
At: Various Hospitals in New York State	Postgraduate Training Program in Anesthesiology	Full time and part time, arranged	None
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	511-A Anesthesiology [8]	Full time, 2 weeks, every Monday	150.00
	513-A Anesthesiology	Full time, 1 year, arranged	600.00
	512-B Regional Anesthesiology	Full time, 2 weeks, Jan. 3 to 13	200.00
	512-C Regional Anesthesiology	Full time, 2 weeks, May 1 to 12	200.00
	515-A Endoscopy for Anesthesiologists [8]	Full time, 2 weeks, Feb. 13 to 24	150.00
University of Pennsylvania, Graduate School of Medicine, Philadelphia 4	Segmental Neuralgias, Relief by Regional Anesthesia	Full time, 3 weeks, arranged	200.00
At: Graduate Hospital and Private Offices			
	ARTHRITIS		
Tufts College Medical School, 30 Bennet St., Boston 11, Mass.	Rheumatic Diseases	Full time, 3 days, April 24 to 26	30.00 [1]
University of Michigan School of Medicine, Dept. of Postgraduate Medicine, Ann Arbor, Mich.			
At: University Hospital	Rheumatic Diseases	Full time, 3 days, March 27 to 29	Not given
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			
At: Jewish Hospital	Arthritis	Part time, 8 weeks, April	30.00
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	542-A Arthritis and Allied Rheumatic Disorders	Part time, Jan. 3 to Feb. 21	50.00
	5426-A Arthritis and Rheumatic Disorders	6 weeks, April 3 to May 11	100.00
	5414-B Arthritis and Allied Rheumatic Disorders	Full time, 10 days, March 6 to 17	125.00
	BACTERIOLOGY		
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Review of Microbiology (Bacteriology) A Basic Course	Part time, 5 weeks, March 16	75.00
University of Illinois, College of Medicine, 1853 W. Polk St., Chicago 12	Refresher Course in Bacteriology, Immunology and Preventive Medicine	Part time, 24 weeks, winter quarter	50.00

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
BACTERIOLOGY—Continued			
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich.	Parasitology	Part time, 12 weeks, March to June	35.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Bacteriology	Part time, 3 months, arranged	100.00
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	68A3 Bacteriology, Serology, Immunology [8]	Part time, 2 weeks, Jan. 23 to Feb. 3, April 10 to 21	50.00
	432-A Viruses and Virus Diseases	Full time, 10 weeks, April 3 to June 10	211.00
	431-A Microbiology Basic Science	Part time, 16 weeks, March 6	75.00
	68B5 Bacteriology of the Ear [8]	Part time, 4 weeks, Jan. 9 to Feb. 3, Feb. 27 to March 24, April 24 to May 19	50.00
BASIC SCIENCES			
Northwestern University Medical School, 303 E. Chicago Ave., Chicago, Ill.			
At: Wesley Memorial Hospital	Basic Sciences for Internal Medicine	Part time, weekly	100.00 [24]
CARDIOVASCULAR DISEASES			
College of Medical Evangelists, Boyle and Michigan Aves., Los Angeles, Calif.	Cardiology	Part time, 10 weeks, Jan. 10 to March 14	50.00
California Heart Association, 45 Second St., San Francisco 5, Calif.			
At: San Diego	Annual Scientific Meeting	May 3	None given
University of California Medical Center, San Francisco 22	Clinical Sciences as Applied to General Medicine, Part II, Cardiology	Part time, 20 weeks, Jan. 9 to	To be announced
At: University of California Hospital			
Yale University School of Medicine, 333 Cedar St., New Haven, Conn.	Medicine 200, Cardiovascular Diseases	Part time, 12 sessions, March 9 to May 25	45.00
University of Florida, Graduate School of Medicine, 2033 Riverside Ave., Jacksonville, Fla.[28]	Postgraduate Seminar on Cardiovascular Diseases	One week, May 15 to 20	5.00
At: Miami, Fla.			
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Twenty hour Personal Course in Cardiovascular Diseases	Part time, 10 weeks, April 12	80.00
University of Kansas Medical Center, Kansas City 3, Kans.	Diseases of the Heart and Circulation	Part time, January 12 to March 16	50.00
Harvard Medical School, 25 Shattuck St., Boston 15, Mass.			
At: Beth Israel Hospital	Cardiology	Full time, 3½ months, January 30 to May 13	500.00 [1]
At: Peter Bent Brigham Hospital	Clinical Heart Disease	Full time, 4 weeks, July 3 to 29	200.00 [1]
Tufts College Medical School, 30 Bennet St., Boston 11, Mass.	Cardiology	Full time, 5 days, April 10 to 14	40.00 [1]
University of Michigan School of Medicine, Dept. of Postgraduate Medicine, Ann Arbor, Mich.			
At: University Hospital	Diseases of the Heart	Full time, 5 days, March 20 to 24	Not given
University of Minnesota, Center for Continuation Study, Minneapolis 14, Minn.	Cardiovascular Diseases for General Physicians	Full time, 3 days, April 20 to 22, January 5 to 7	20.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York	Medicine PM 62 Supplementary Cardiology	Part time, 19 sessions, Jan. 31 to June 6	150.00
At: Montefiore Hospital	Medicine PM 63 Advanced Cardiology	Part time, 19 sessions, Jan. 31 to June 6	250.00
At: Mt. Sinai Hospital	Medicine PM 31 Cardiovascular Diseases	Full time, 15 days, Feb. 20 to March 8	125.00
	Medicine PM 48 Bedside Diagnosis and Treatment of Heart Disease Special Emphasis of the Circulatory Dynamics	Part time, 10 sessions, Feb. 7 to April 11	45.00
	Medicine PM 46 Bedside Clinics in Heart Disease	Part time, 8 sessions, Feb. 6 to March 7	30.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Cardiology	Part time, 20 weeks, continuously	150.00
New York Polyclinic Medical School and Hospital, 345 West 50th St., New York 19	Diagnosis and Treatment of Diseases of the Heart	Part time, 3 weeks, arranged	75.00
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	544-A Cardiology	Part time, 7 sessions, Jan. 9 to Feb. 20	50.00
	5425-A Cardiology	Full time, 4 weeks, May 2 to 26	200.00
	681-A Cardiovascular Disease	Part time, 12 weeks, March 30 to June 15	50.00
University of Pennsylvania, Graduate School of Medicine, Philadelphia 4	Cardiology	Part time, 8 weeks, January and April	80.00
Meharry Medical College, 1005 18th Ave., Nashville 8, Tenn.	Cardiovascular Disease	Full time, 1 week, April 10 to 15	25.00
University of Wisconsin Medical School, 418 N. Randall Ave., Madison, Wis.	Review of Cardiology	Full time, 5 days, February 15 to 19	25.00
DERMATOLOGY AND SYPHILOLOGY			
College of Medical Evangelists, Graduate School of Medicine, 312 Boyle Ave., Los Angeles 33, Calif.	Dermatology	Part time, 12 weeks, Jan. 3 to March 21	40.00
Yale University School of Medicine, 333 Cedar St., New Haven, Conn.	Medicine, 210 Dermatology	Part time, 5 sessions, March 2 to April 6	20.00
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Two week Intensive Course in Dermatology	Full time, 2 weeks, May 8	100.00
	Clinical Refresher Course in Dermatology	Full time, 2 weeks or more, every Monday	75.00 [39]
	Twelve month Course in Dermatology	Full time, 12 months, by appointment	1,000.00
Michael Reese Hospital Postgraduate School, 29th St. and Ellis Ave., Chicago 16, Ill.	Clinical Dermatology	Full time, 1 week, April 3 to 8	50.00
Tufts College Medical School, 30 Bennet St., Boston 11, Mass.	Dermatology II	Full time, 5 days, April 3 to 7	40.00 [1]
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich.	Superficial Mycoses	Part time, 12 weeks, December to March	25.00
At: Receiving Hospital	Seminar in Dermatology	Part time, 12 weeks, quarterly	15.00
	Seminar in Dermopathology	Part time, 12 weeks, quarterly	15.00
	Deep Mycoses	Part time, 12 weeks, March to June	25.00

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
DERMATOLOGY AND SYPHILOLOGY—Continued			
At: Social Hygiene Clinic	Conference on Venereal Disease	Part time, 12 weeks, quarterly	15.00
University of Minnesota, Center for Continuation Study, Minneapolis 14, Minn.	Dermatology for Specialists	Full time, 3 days, March 27 to 29	20.00
	Dermatology for General Physicians	Full time, 3 days, May 11 to 13	20.00
University of Buffalo School of Medicine, 24 High St., Buffalo, N. Y.	Dermatology and Syphilology	18 sessions, Feb. 1950	30.00
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island Medical College, 1313 Bedford Ave., Brooklyn 16			
At: Beth El Hospital	Diagnosis and Treatment of Common Skin Diseases	Part time, 8 weeks, April	20.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York			
At: Mt. Sinai Hospital	Dermatology PM 31 Occupational Diseases of the Skin	Part time, 3 weeks, Jan. 11 to Feb. 3	15.00
New York Polyclinic Medical School and Hospital, 345 West 50th St., New York 19	Dermatology and Syphilology for the General Practioner	Full time, 5 days, arranged	75.00
	Dermatology and Syphilology for Specialists	Full time, 5 days, arranged	75.00
	Dermatologic Histopathology	Full time, 5 days, arranged	75.00
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	521-A Seminar in Dermatological Histopathology [8]	Full time, 5 days, May 8 to 12	75.00
	523-A Symposium on Dermatology and Sphilology [8]	Full time, 5 days, May 22 to 26	100.00
	Short Term Postgraduate Courses in Dermatology and Syphilology	Full time, 3 months to 1 year, arranged	150.00 [1]
DIABETES			
University of Florida, Graduate School of Medicine, 2033 Riverside Ave., Jacksonville, Fla.			
At: George Washington Hotel, Jacksonville	Seminar on Diabetes Mellitus	3 days, March (tentative)	Not given
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Medical and Surgical Diabetes	Part time, 10 weeks, March 22	80.00
Tufts College Medical School, 30 Bennet St., Boston 11, Mass.	Diabetes	Full time, 3 days, March 20 to 22	30.00 [1]
Joint Committee on Post-Graduate Education, Medical Society of the County of King, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			
At: Jewish Sanitarium and Hospital, E. 49th St., and Rutland Rd.	Diabetes Mellitus	Part time, 10 weeks, April	20.00
At: Jewish Hospital, 555 Prospect Place	Diabetes Mellitus	Part time, 8 weeks, April	20.00
ELECTROCARDIOGRAPHY			
University of California Medical Center, San Francisco 22	Electrocardiography	Full time, 3 days, Jan. 30 to Feb. 1	To be announced
University of Southern California, School of Medicine, Los Angeles, Calif.			
At: San Diego, Calif.	Electrocardiography 834	Part time, 12 weeks, January 20	50.00
Emory University School of Medicine, 36 Butler St., Atlanta, Ga.			
At: Grady Memorial Hospital	Electrocardiography	Full time, 5 days, Feb. 20 to 24	50.00
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Four week course in Electrocardiography and Heart Disease	Full time, 4 weeks, to be announced	250.00
	Two week Intensive Course in Electrocardiography and Heart Disease	Full time, 2 weeks, to be announced	150.00
Michael Reese Hospital Postgraduate School, 29th St. and Ellis Ave., Chicago 16, Ill.	Electrocardiographic Interpretation	Part time, 12 weeks, Feb. 8 to April 26	50.00
University of Louisville School of Medicine, 101 Chestnut St., Louisville, Ky.			
At: Louisville General Hospital	Electrocardiography	Part time, 10 sessions, Dec. to Feb.	25.00
Harvard University Medical School Courses for Graduates, 25 Shattuck St., Boston 15, Mass.			
At: Peter Bent Brigham Hospital	Clinical Electrocardiography	Full time, 2 to 4 months, March 1 to June 30	200.00 [1,3]
Tufts College Medical School, 30 Bennet St., Boston 11, Mass.	Electrocardiography I	Full time, 5 days, Feb. 13 to 17	40.00 [1]
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich.	Electrocardiography	Part time, 9 months	45.00
Joint Committee on Post-Graduate Education, Medical Society of the County of King, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			
At: Jewish Hospital	Electrocardiography for the General Practitioner	Part time, 6 weeks, April	30.00
At: Beth El Hospital	Basic Electrocardiography	Part time, 5 weeks, April	20.00
At: Israel Zoin Hospital	Clinical Cardiology and Advanced Electrocardiography	Part time, 5 weeks, April	20.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York	Medicine PM 42 Intensive Course in Advanced Electrocardiography	Full time, 5 days, Jan. 16 to 20	40.00
At: Mt. Sinai Hospital	Medicine PM 41 Intensive Course in Elementary Electrocardiography	Full time, 6 days, Jan. 9 to 14	60.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Electrocardiography	Part time, 2 weeks, arranged	100.00
New York Polyclinic Medical School and Hospital, 345 W. 50th St., New York 19	Electrocardiographic Interpretation	Part time, 2 weeks, arranged	75.00
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	5423-B Electrocardiography	Full time, 5 days, April 10 to 14	60.00
	5427-A Practical Electrocardiography for the Practicing Physician	Part time, 6 weeks, April 4 to May 9	45.00
	682-A Electrocardiography	12 weeks, March 30 to June 15	35.00
University of Oregon Medical School, 3181 S.W. Sam Jackson Park Rd., Portland	Electrocardiography	Full time, 5 days, June 5 to 9	50.00

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
ELECTROENCEPHALOGRAPHY			
University of Southern California, School of Medicine, 1200 N. State St., Los Angeles 33 At: Los Angeles County Hospital	Clinical Electroencephalography	Part time, 12 weeks, January	50.00
New York University-Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	642-A Electroencephalography	Part time, 8 weeks, Jan. 9 to Feb. 4	300.00
University of Pennsylvania, Graduate School of Medicine, Philadelphia 4	Electroencephalography	Full time, 2 weeks, arranged	200.00 [25]
ENDOCRINOLOGY			
College of Medical Evangelists, Boyle and Michigan Aves., Los Angeles, Calif.	Endocrinology	Part time, 8 weeks, April 3 to May 22	30.00
University of Southern California, School of Medicine, Los Angeles, Calif. At: Centinela Hospital, Inglewood, Calif.	Endocrinology 847	Part time, 12 weeks, January 23	50.00
University of Michigan Medical School, Dept. of Postgraduate Medicine, Ann Arbor, Mich. At: University Hospital	Endocrinology and Metabolism	Full time, 5 days, April 3 to 7	Not given
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16 At: Jewish Hospital	Disorders of the Endocrine System	Part time, 6 weeks, April	40.00
	Female Sex Endocrinology	Part time, 10 weeks, April	20.00
At: Beth El Hospital	Endocrine Disorders in Children and Adolescents	Part time, 8 weeks, April	20.00
At: Jewish Sanitarium and Hospital for Chronic Diseases	Applied Endocrinology	Part time, 6 weeks, April	30.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York At: Mt. Sinai Hospital	Medicine PM 38 Diseases of Metabolism	Full time, 5 days, Feb. 1 to 6	40.00
	Endocrinological Diseases	Full time, 5 days, March 17 to 22	30.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Endocrinology	Full time, 3 weeks, arranged	150.00
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	549-A Endocrinology	Part time, 8 sessions, Jan. 6 to Feb. 24	50.00
	5422-A Endocrinology	Full time, 5 days, April 24 to 28	60.00
University of Oregon Medical School, 3181 S.W. San Jackson Park Rd., Portland	Metabolism and Endocrinology	Full time, 5 days, May 1 to 5	50.00
ENDOSCOPY			
University of Illinois, College of Medicine, 1853 W. Polk St., Chicago 12	Bronchoesophagology [8]	Full time, 2 weeks, Feb. 13 to 25, May 29 to June 10	150.00
Harvard Medical School, Courses for Graduates, 25 Shattuck St., Boston 15, Mass. At: Massachusetts General Hospital	Endoscopy	Full time, 3 months, January thru July	375.00 [1]
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	Cystoscopy and Endoscopy	Part time, 15 sessions	100.00
	566-C	Jan. 4 to Feb. 6	
	566-D	Feb. 13 to March 20	
	566-E	April 3 to May 8	
	566-F	May 15 to June 16	
Temple University School of Medicine, 3400 North Broad St., Philadelphia 40, Pa.	Bronchoscopy, Esophagoscopy and Laryngeal Surgery	2 weeks, Feb. 13 to 24	250.00
University of Pennsylvania, Graduate School of Medicine, Philadelphia 4	Bronchoesophagology, Gastroscopy and Laryngeal Surgery	2 weeks, January	250.00
FORENSIC MEDICINE			
University of California Medical Center, San Francisco 22	Forensic Medicine	Full time, 3 days, Feb. 6 to 8	To be announced
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	532-A Forensic Medicine	Full time, varying duration, arranged	100.00 [3]
FRACTURES			
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Informal Course in Clinical Fractures	Full time, 2 weeks, arranged	75.00
	Intensive Course in Fractures and Traumatic Surgery	Full time, 2 weeks, April 17, June 12	125.00
	Special Course in Fractures	Part time, 10 weeks, March 22	125.00
Joint Committee on Post-Graduate Medical Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16 At: Kings County Hospital	Fractures	Part time, 10 weeks, April	20.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Fractures and Allied Trauma	Full time, 3 weeks, arranged	150.00
GASTROENTEROLOGY			
University of Southern California, School of Medicine, Los Angeles, Calif. At: Los Angeles County Hospital	Gastroenterology 845	Part time, 12 weeks, January 17	50.00
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Personal Course in Gastroenterology	Part time, 10 weeks, April 12	100.00
	Two week Course in Gastroenterology	Full time, 2 weeks, May 15	100.00
	Forty hour Course in Gastroscopy and Gastronenterology	Full time, 2 weeks, March 6, May 15 and June 12	200.00
University of Michigan Medical School, Dept. of Postgraduate Medicine, Ann Arbor, Mich. At: University Hospital	Diseases of the Gastrointestinal Tract	Full time, 5 days, March 13 to 17	Not given
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich. At: Receiving Hospital	Gastroenterology	Part time, 12 weeks, quarterly	15.00
University of Buffalo School of Medicine, 24 High St., Buffalo, N. Y.	Gastroenterology	18 sessions, March	30.00

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Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
GASTROENTEROLOGY—Continued			
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16 At: Jewish Hospital At: Jewish Sanitarium and Hospital for Chronic Diseases At: Greenpoint Hospital At: Beth El Hospital	Gastroenterology I Gastroenterology II Gastroenterology III Gastroenterology IV	Part time, 6 weeks, April Part time, 6 weeks, April Part time, 8 weeks, April Part time, 8 weeks, April	20.00 20.00 30.00 30.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York At: Mt. Sinai Hospital	Medicine PM 32 Gatrointestinal Diseases Medicine PM 45 Intensive Course in Gastroenterology	Full time, 1½ weeks, Jan. 23 to Feb. 1 Full time, 5 days, April 3 to 7	80.00 60.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Gastroscopy (Advanced) Gastroscopy Gastroenterology	Part time, 5 weeks, arranged Part time, 2 weeks, aranged Part time, 1 month, arranged	200.00 200.00 100.00
New York Polyclinic Medical School and Hospital, 345 W. 50th St., New York 19	Gastroenterology	Part time, 3 months or 6 weeks, January and April	75.00 (3 mos.) 50.00 (6 wks.)
New York University Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	5421-B Gastroenterology 5411-A Gastroenterology	Full time, 10 days, June 5 to 16 Part time, 7 sessions, Jan. 4 to Feb. 15	115.00 50.00
University of Pennsylvania, Graduate School of Medicine, Philadelphia 4	Clinical Gastroenterology	Full time, 16 weeks, February	400.00
GERIATRICS			
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York At: Mt. Sinai Hospital	Medicine PM 47 Geriatrics	Part time, 16 sessions, Feb. 2 to May 18	65.00
HEMATOLOGY			
Yale University School of Medicine, 333 Cedar St., New Haven, Conn. At: Hartford Hospital	Medicine 208, Hematology	Part time, 6 sessions, April 7 to May 12	25.00
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Personal Course in Hematology One week Personal Course in Hematology	Part time, 10 weeks, April 5 Full time, 1 week, May 8	100.00 100.00
University of Louisville School of Medicine, 101 Chestnut St., Louisville, Ky. At: Louisville General Hospital	Hematology	Part time, 10 weeks, Feb. 15 to April 19	Not given
Tufts College Medical School, 30 Bennet St., Boston 11, Mass.	Hematology II	Full time, 2 weeks, May 8 to 20	100.00 [1]
University of Michigan Medical School, Dept. of Postgraduate Medicine, Ann Arbor, Mich. At: University Hospital	Diseases of the Blood	Full time, 5 days, April 10 to 14	Not given
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich.	Beginning Hematology Advanced Hematology	Part time, 12 weeks, December to March Part time, 12 weeks, March to June	50.00 50.00
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16 At: Jewish Hospital	Clinical Hematology	Part time, 8 weeks, April	20.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York At: Mt. Sinai Hospital	Medicine PM 35 Hematology	Full time, 6 days, Feb. 6 to 11	60.00
New York University-Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	546-B Clinical Hematology	Part time, 7 sessions, Jan. 4 to Feb. 15	40.00
University of Pennsylvania, Graduate School of Medicine, Philadelphia 4 At: Bryn Mawr Hospital	Clinical and Laboratory Hematology	Full time, 6 weeks, February and April	200.00
HISTOLOGY			
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Histology	Full time, 5 weeks, arranged	300.00
IMMUNOLOGY			
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Immunology	Part time, 6 weeks, arranged	50.00
INDUSTRIAL MEDICINE			
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	482-A Industrial Dermatoses 483-A The Pneumoconicoses 644-A Psychiatry in Industry	Part time, April 3 to 21 Part time, March 13 to April 7 Part time, March 6 to 18	100.00 150.00 150.00
INTERNAL MEDICINE			
College of Medical Evangelists, Graduate School of Medicine, 312 N. Boyle Ave., Los Angeles 33, Calif.	Differential Diagnosis and Treatment of Internal Diseases	Part time, 12 weeks, Jan. 2 to March 20	50.00
University of California, Medical Center, San Francisco 22	Internal Medicine and General Surgery	Full time, 1 week, April 24 to 28	50.00
University of California, University Extension, 405 Hilgard Ave., Los Angeles 24	Clinical Use of Radioactive Elements and Tracer Drugs	Part time, 6 weeks, April 12 to May 17	25.00
George Washington University School of Medicine, 1335 H St., N.W., Washington, D. C. At: George Washington University Hospital	Current Trends in Internal Medicine	1 week, March 13 to 17	50.00
Emory University School of Medicine, 36 Butler St., Atlanta, Ga. At: Grady Memorial Hospital	General Internal Medicine	Full time, 2 weeks to 12 months, arranged	125.00 [4]
Michael Reese Hospital Postgraduate School, 29th St. and Ellis Ave., Chicago 16, Ill.	Recent Advances in Internal Medicine	Full time, 2 weeks, April 24 to May 6	100.00
State University of Iowa, College of Medicine, Iowa City, Iowa At: University Hospital	Conference in Internal Medicine	3½ days, April 5 to 8	40.00

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Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
INTERNAL MEDICINE—Continued			
University of Kansas Medical Center, 39th and Rainbow Blvd., Kansas City, Kans.	Internal Medicine and Psychiatry	Full time, 4 days, March 20 to 23	25.00
Tulane University of Louisiana School of Medicine, 1430 Tulane Ave., New Orleans, La.	Continuation Course in Internal Medicine	Full time, 2 weeks, Jan. 30 to Feb. 10	100.00
Harvard Medical School, Courses for Graduates, 25 Shattuck St., Boston 15, Mass.			
At: Boston City Hospital	Internal Medicine 2	Full time, 3 months, June 1 to Aug. 31	375.00 [1]
At: Massachusetts General Hospital	Internal Medicine 3	Full time, 6 weeks, June 19 to July 28	250.00 [1]
Tufts College Medical School, 30 Bennet St., Boston 11, Mass.	Graduate Course in Internal Medicine	Full time, 3 or 6 months Jan. 2 to June 30 April 3 to June 30	 500.00 [1] 250.00 [1]
University of Minnesota, Center for Continuation Study, Minneapolis 14	Internal Medicine for General Physicians	Full time, 3 days, April 10 to 12	20.00
Joint Committee on Post-graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			
At: Coney Island Hospital	Peripheral Vascular Diseases III	Part time, 8 weeks, April	20.00
At: Jewish Hospital	Peripheral Vascular Diseases II	Part time, 5 weeks, April	20.00
At: Beth El Hospital	Peripheral Vascular Diseases I	Part time, 10 weeks, April	30.00
At: Jewish Hospital	Hypertension and Nephritis	Part time, 8 weeks, April	20.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York			
At: Mt. Sinai Hospital	Medicine PM 30 Symposium on Internal Medicine	Full time, 9 weeks, Jan. 23 to March 29	350.00
Cornell University Medical College, 1300 York Ave., New York 21			
At: Bellevue Second Medical Division	Graduate Instruction in Internal Medicine	Full time, 3 or 6 months continuously	300.00 [21]
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Internal Medicine	Full time, 1 to 2 months, Monthly except July and August	150.00 a month
New York University Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	541-A Seminar in Internal Medicine	Full time, Jan. 3 to Feb. 24	350.00
	5429-B Internal Medicine	Part time, 4, 8 or 12 weeks, March 6 to May 26	100.00 [26]
	5419-A Symposium on Internal Medicine	Full time, 10 days, June 19 to 30	115.00
Oklahoma State Medical Association, 210 Plaza Court, Oklahoma City, Okla.			
At: 40 County-seat towns and cities throughout state	Internal Medicine	Part time, 10 weeks, one lecture a week in each teaching center	20.00
MALIGNANT DISEASES			
University of California, University Extension, 405 Hilgard Ave., Los Angeles 24	Diagnosis and Treatment of Cancer	Full time, 1 week, July 17 to 21	Undecided
National Cancer Institute, Bethesda 14, Md.			
At: Various Hospitals Throughout the U.S.	Training Fellowships in the Diagnosis and Treatment of Cancer	Full time, 1 to 3 years	see footnote [7]
University of Michigan Medical School, Dept. of Postgraduate Medicine, Ann Arbor, Mich.			
At: University Hospital	Cancer	Full time, 4 days, Jan. 17 to 21	25.00
University of Minnesota Center for Continuation Study, Minneapolis 14	Cancer for General Physicians	Full time, 3 days, Feb. 16 to 18	20.00
Washington University Medical School, 4580 Scott Ave., St. Louis 10, Mo.	Cancer	Full time, 4 days, March 14 to 17	35.00
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			
At: Kings County Hospital	Diagnosis and Treatment of Neoplastic Disease	Part time, 8 weeks, April	30.00
Cornell University Medical College, 1300 York Ave., New York 21	Cytologic Diagnosis of Cancer	Full time, 2 weeks, April 17 to 29	100.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	New Concepts in the Physiology and Biochemistry of Cancer	Part time, 6 weeks, arranged	150.00
MEDICINE, GENERAL			
Black Belt Postgraduate Medical Assembly, Marion, Ala.			
At: Lakeland Club House, Marion, Ala.	Refresher Courses for General Practice	Part time, 4 sessions, February	5.00 [5]
John A. Andrew Clinical Society, Tuskegee Institute, Ala.			
At: John A. Andrew Memorial Hospital	Annual Clinic and Meeting	April 2 to 7	Not given
Medical College of Alabama, 620 S. 20th St., Birmingham, Ala.	Postgraduate Study for Alabama Academy of General Practice	Full time, 2 days, January 18-19	None
Medical Association of the State of Alabama, Montgomery, Ala., and Medical College of Alabama			
At: Cullman, Ala.	Postgraduate Seminar	3 hours, January and May	2.00
At: Marion, Ala.	Postgraduate Seminar	3 hours, February and May	2.00
At: Haleyville, Ala.	Postgraduate Seminar	3 hours, February and May	2.00
College of Medical Evangelists, Boyle and Michigan Aves., Los Angeles, Calif.	Treatment of Functional Illness in General Practice	Part time, 8 weeks, Jan. 4 to Feb. 22	40.00
	Varicose Veins	Part time, 6 sessions, March 2 to April 6	25.00
University of Southern California, School of Medicine, 1200 N. State St., Los Angeles 33			
At: Los Angeles County Hospital	Survey Course for General Practitioners	Full time, 1 week, March	50.00
Colorado State Medical Society, 835 Republic Bldg., Denver 2			
At: Shirley-Savoy Hotel, Denver	Midwinter Postgraduate clinics	4 days, Feb. 21 to 24	5.00
University of Colorado Medical Center, 4200 E. Ninth St., Denver	General Medicine for General Practitioners	Full time, 5 days, to be announced	20.00 [1]

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

MEDICINE, GENERAL—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
Yale University School of Medicine, 333 Cedar St., New Haven, Conn.			
At: Hospital for Chronic Illness, Rocky Hill, Conn.	Medicine 206, Physical Medicine and Rehabilitation	Part time, 11 sessions, March 16 to May 25	15.00
At: Hartford Hospital	Medicine 207, Fluid and Electrolyte Balance	Part time, 4 sessions, April 4 to 25	20.00
University of Florida, Graduate School of Medicine, 2033 Riverside Ave., Jacksonville, Fla.[50]			
At: Duval Medical Center	Special Short Course	1 week, Jan. 16 to 21	5.00
At: George Washington Hotel	18th Annual Graduate Short Course	1 week, June 26 to July 1	10.00
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Two week Intensive Course in General Medicine	Full time, 2 weeks, April 24	75.00
	One week Intensive Personal Course in Liver and Biliary Tract Diseases	Full time, 1 week, June 5	100.00
	Personal Course in Physical Diagnosis	Part time, 10 weeks, March 15	80.00
University of Kansas, 39th St. and Rainbow Blvd., Kansas City 3, Kansas			
At: 7 Selected Centers throughout the State	Six month Postgraduate Course in Medicine and Surgery	12 sessions, Dec. to May	25.00
University of Louisville, School of Medicine, 101 Chestnut St., Louisville, Ky.	Medical Seminar	Full time, 2 days, June 12 and 13	5.00
Massachusetts Medical Society, 8 Fenway, Boston 15			
At: Ware Hall	Postgraduate Course	Part time, 13 sessions, March 6 to April 26	None
At: Hotel Statler	Annual Meeting	Full time, 3 days, May 16 to 18	None
Wayne University College of Medicine, 1312 St. Antoine St., Detroit, Mich.			
At: Receiving Hospital	Medical Conference	Part time, 12 weeks, quarterly	15.00
	Medical Seminar	Part time, 12 weeks, quarterly	15.00
American Academy of General Practice, 406 W. 34th St., Kansas City 2, Mo.			
At: Kiel Auditorium, St. Louis, Mo.	Scientific Session	Full time, 3 days Feb. 20 to 23	None
Missouri State Medical Association, 623 Missouri Bldg., St. Louis 3			
At: St. Louis	Centennial Session	2½ days, March 26 to 29	Not given
Washington University Medical School, 4580 Scott Ave., St. Louis, Mo.	Medicine	1 week, May	Not given
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			
At: Greenpoint Hospital	Sterility	Part time, 12 weeks, April	40.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York	Medicine PM 33 Diseases of the Liver	Full time, 5 days, March 22 to 27	35.00
At: Mt. Sinai Hospital	Diseases of the Kidneys	Full time, 4 days, March 9 to 13	35.00
	Diagnosis and Treatment of Ambulatory patients	Part time, 11 sessions, Feb. 7 to April 19	20.00
New York Polyclinic Medical School and Hospital, 345 W. 50th St., New York 19	Course for General Practitioners	Full time, 6 weeks, January thru April	100.00
New York University Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	547-A Problems in Diagnosis	Part time, 7 sessions, Jan. 10 to Feb. 21	50.00
	5410-A Diseases of the Liver and Biliary Tract	Part time, 7 sessions, Jan. 4 to Feb. 15	30.00
	5412-A Nephritis and Hypertension	Part time, 8 sessions, Jan. 5 to Feb. 23	35.00
	5424-B Nephritis and Hypertension	Full time, 2 weeks, April 17 to 28	55.00
	5418-B Peripheral Vascular Disease	Full time, 5 days, April 10 to 14	60.00
	5413-A Peripheral Vascular Disease	Part time, 8 sessions, Jan. 3 to Feb. 21	40.00
Duke University School of Medicine, Durham, North Carolina	Refresher Course for General Practitioners	Full time, 5 days, March 20 to 24, June 12 to 16	25.00
Ohio State Medical Association, 79 East State St., Columbus 15			
At: Cleveland Public Auditorium	1950 Annual Meeting	Full time, 3 days, May 16 to 18	None
Medical Society of the State of Pennsylvania, 230 State St., Harrisburg, Pa.			
At: Eleven Centers in Pennsylvania	Graduate Education Institute	5 sessions, April 4 to May 4	25.00 per year
Mid-South Postgraduate Assembly, 899 Madison Memphis, Tenn.			
At: Peabody Hotel	Mid-South Postgraduate Medical Assembly	Full time, 4 days, Feb. 14 to 17	10.00
Prairie View University Postgraduate Division, Prairie View, Texas			
At: Prairie View A&M College	Prairie View Postgraduate Medical Assembly	Part time, 5 days, March	None

NEUROLOGY AND PSYCHIATRY

Los Angeles Institute for Psychoanalysis, 407 Commercial Center St., Beverly Hills, Calif.	Professional School Course	Part time, 6 months, January through July	232.00
College of Medical Evangelists, Graduate School of Medicine, 312 N. Boyle Ave., Los Angeles 33, Calif.	Neurology	Part time, 8 weeks, Jan. 5 to Feb. 23	30.00
University of California Medical Center, San Francisco 22			
At: The Langley Porter Clinic	Psychiatry for the General Practitioner	Full time, 1 week, April 24 to 28	50.00
Yale University School of Medicine, 333 Cedar St., New Haven, Conn.			
At: Veterans Administration Hospital	Psychiatry S-200, Psychiatric Aspects of Medical and Surgical Practice	Part time, 4 sessions, Jan. 9 to 30	None
At: Norwich State Hospital	Psychiatry S-203, Conference on the Administrative Aspects and Problems of Public Mental Health	Part time, 7 sessions, March 29 to May 10	15.00

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
NEUROLOGY AND PSYCHIATRY—Continued			
At: Fairfield State Hospital	Psychiatry S-202, General Psychiatry and Therapy of Mental Disorders in Psychiatric Hospitals	Part time, 6 sessions, Apr. 3 to May 8	20.00
At: Connecticut State Hospital	Psychology S-201, Clinical Psychology	Part time, 8 sessions, Jan. 6 to Feb. 7	20.00
	Psychiatry S-201, Introduction to Dynamic Psychiatry	Part time, 3 sessions, Mar. 13 to 27	15.00
At: Yale University	Psychiatry S-204, Seminar in Psychoanalytic Literature	Part time, 7 sessions, Mar. 3 to Apr. 14	25.00
George Washington University School of Medicine, 1335 H St., N.W., Washington, D. C.			
At: George Washington University Hospital	Psychiatry	Full time, 1 week, April 3 to 7	50.00
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Personal Course in Clinical Neurology	Part time, 10 weeks, April 19	80.00
	Personal Course in Neuropathology	Part time, arranged	20.00 [20]
University of Kansas Medical Center, 39th and Rainbow, Kansas City 3, Kans.	Psychosomatic Medicine	Full time, 3 days, April 24 to 26	20.00
Tulane University School of Medicine, 1430 Tulane Ave., New Orleans, La.	Continuation Course in Psychiatry	Full time, 1 week, June 12 to 17	50.00
American Psychiatric Association, 1624 Eye St., N.W., Washington, D. C.			
At: Wayne University Medical School	Psychiatric Review Seminar	1 day, April 30	10.00
University of Minnesota, Center for Continuation Study, Minneapolis 14	Neurology for Internists, Psychiatrists and Pediatricians	Full time, 13 days, Jan. 30 to Feb. 11	70.00
Massachusetts Department of Mental Health, Boston, Mass.			
At: Boston Psychopathic Hospital	Postgraduate Seminar in Neurology and Psychiatry	Part time, 36 hours, Mar. 15 to May 10	None
At: Metropolitan State Hospital	Review Course in Basic Neurology and Psychiatry	Part time, 72 hours, Mar. 3 to May 19	None
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			
At: Jewish Hospital	Child Psychiatry	Part time, 10 weeks, April	20.00
At: Jewish Sanitarium and Hospital for Chronic Diseases	Clinical Neurology	Part time, 8 weeks, April	20.00
American Institute for Psychoanalysis, 220 West 98th St., New York 25	Psychiatry and Psychoanalysis	Part time, 15 weeks, Feb. 13	30.00
	Continuous Case Seminar [10]	Part time, 10 weeks, Feb. 13	20.00
	Psychoanalytic Therapy [10]	Part time, 17 weeks, Feb. 9	34.00
At: New School for Social Research, 66 W. 12th St., New York	Clinical Conferences [11]	Part time, 10 weeks, Feb. 10	20.00
	Horney's Theory of Neurosis	Part time, 15 weeks, Feb. 10	17.50
	Seminar on Personal Case Histories	Part time, 15 weeks, Feb. 7	30.00
	The Meaning of Dreams	Part time, 15 weeks, Feb. 6	17.50
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York			
At: Mt. Sinai Hospital	Neurology PM 30 Clinical Neurology and Neurosurgery	Full time, 5 days, April 10 to 14	60.00
At: Columbia Presbyterian Medical Center	Clinical Electroencephalography and Electromyography	Full time, 3 months, any 3 months between October and March	150.00
	Advanced Neurology	Full time, 3 months, Jan. 2 to March 31, April 3 to June 30	150.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Readings in Psychoanalytic Literature	Part time, 15 sessions, arranged	40.00
New York Psychoanalytic Institute, 245 East 82nd St., New York 28	Psychoanalysis and Psychiatry	Part time, 15 sessions, Feb. 3	40.00
	Relation between Child Development and Adult Personality	Part time, 6 weeks, March 13 to May 22	12.00 [9]
	Introduction to Psychoanalytic Principles in Psychosomatic Medicine	Part time, 8 weeks, Dec. 14 to Feb. 8	16.00 [9]
	Seminar on Basic Dynamics of Symptom Formation	Part time, 11 sessions, Dec. 12 to March 6	22.00
New York University-Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	551-A Neurologic Problems in General Practice	Part time, 3 weeks, Jan. 2 to 21	150.00
	641-A Psychiatric Problems in General Practice	Part time, 3 weeks, Jan. 2 to 21	150.00
	643-A Treatment Methods in Psychiatry	Part time, 2 weeks, Jan. 16 to March 11	300.00
	644-A Psychiatry in Industry	Part time, 2 weeks, March 6 to 18	150.00
	645-A Psychiatry and the Law	Part time, 8 weeks, Jan. 23 to March 18	300.00
	646-A Psychiatry in the practice of Medicine and Pediatrics	Full time, 3 months, arranged	300.00
Postgraduate Center for Psychotherapy, 218 E. 70th St., New York	Early Detection of Maladjustments in Children	Full time, 1 day, Feb. 18	10.00
	Psychopathology and Treatment of Functional Neuro-Muscular Syndromes [8]	Part time, 5 sessions, Feb. 14 to Mar. 14	15.00
	The Use of Art Productions in Diagnosis and Therapy of Emotional Problems	Part time, 10 sessions, Feb. 14 to May 23	30.00
	Psychiatric Seminar for Physicians	Part time, 15 sessions, Feb. 17 to June 2	35.00
	Techniques of Dream interpretation [8]	Part time, 10 sessions, Feb. 15 to Apr. 26	30.00
	Techniques of Psychoanalytically Oriented Psychotherapy [8]	Part time, 15 sessions, Feb. 15 to May 31	40.00
	Techniques of Psychobiological Therapy [8]	Part time, 10 sessions, January 6	40.00
	Readings in Psychiatry I and II	Part time, 15 sessions Feb. 13 to May 22 (I) Apr. 24 to May 22 (II)	30.00
	Continuous Case Seminar [8]	Part time, 15 sessions, Feb. 15 to May 31	30.00
	Techniques of Psychotherapy [8]	Part time, 15 sessions, Feb. 15 to May 31	40.00
	Current Approaches in Psychotherapy	Part time, 10 sessions, Feb. 15 to Apr. 26	30.00

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
NEUROLOGY AND PSYCHIATRY—Continued			
University of Oregon Medical School, 3181 S.W. Sam Jackson Park Rd., Portland	Psychiatry for General Practitioners	Full time, 5 days, March 13 to 17	50.00
Philadelphia Psychoanalytic Institute, 111 North 49th St., Philadelphia 39, Pa.			
At: Hotel Adelphia	Psychoanalysis and Social Institutions	Part time, 5 sessions, April 27 to June 8	10.00
University of Texas, Medical Branch, 900 Strand St., Galveston, Texas	Psychiatry	5 days, Feb. 13 to 18	25.00
NUCLEAR SCIENCE			
Oak Ridge Institute of Nuclear Studies, P. O. Box 117, Oak Ridge, Tenn.	Techniques of Using Radioisotopes in Research	Full time, 1 month, Jan., Feb., and March	25.00
NUTRITION			
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich.	Nutrition	Part time, 12 weeks, March to June	35.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Nutrition	1 month, arranged	150.00
OBSTETRICS AND GYNECOLOGY			
University of Colorado Medical Center, 4200 E. Ninth St., Denver	Postgraduate Course in Obstetrics-Gynecology	Full time, 2 days, April 29 to 30	10.00
	Problems of Newborn, Full Term and Premature	Full time, 3½ days, to be announced	10.00 [1]
George Washington University School of Medicine, 1535 H St., N.W., Washington 5, D. C.			
At: George Washington University Hospital	Obstetrics and Gynecology	Full time, 1 week, Mar. 27 to 31	50.00
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Intensive Course in Obstetrics	Full time, 2 weeks, March 6, April 3 and June 5	150.00
	Personal Course in Office and General Obstetrics	Part time, 4 weeks, Feb. 1, March 1, June 7	80.00
	Personal Course in Surgical Obstetrics	Part time, 4 weeks, Jan. 4, May 3, July 5	100.00
	Two week Intensive Course in Gynecology	Full time, 2 weeks, Feb. 20, March 20, April 17 and June 19	150.00
	Personal Course in Vaginal Approach to Pelvic Surgery	Full time, 1 week, March 6, April 3, May 15 and June 12	100.00
	Practical and Didactic Course in Office Gynecology	Part time, 4 weeks, Jan. 11, Feb. 8, April 5, May 31 and July 12	80.00
	Personal Course in Gynecologic Surgery	Part time, 4 weeks, Jan. 12, Feb. 9, April 6, June 1 and July 13	80.00
University of Illinois, College of Medicine, 1853 W. Polk St., Chicago 12	Refresher Course for Physicians	Full time, 2 weeks, any Monday morning	10.00
	Refresher Course	Full time, 1 week, July 15	10.00
Tulane University of Louisiana, School of Medicine, 1430 Tulane Ave., New Orleans, La.	Continuation Course in Obstetrics	Full time, 2 weeks, Apr. 3 to 15	100.00
	Continuation Course in Gynecology	Full time, 1 week, Jan. 16 to 21	50.00
University of Maryland, School of Medicine, 29 So. Greene St., Baltimore 1, Md.	Gynecology and Obstetrics "A"	Full time, 12 weeks, arranged	150.00
At: University Hospital	Gynecology, Oncology and Female Urology "B"	Full time, 10 weeks, arranged	125.00
Harvard Medical School, Courses for Graduates, 25 Shattuck St., Boston 15			
At: Boston Lying-in Hospital	Clinical Obstetrics	Full time, 1 month, April, May and June	150.00 [1,2]
At: Free Hospital for Women	Gynecology 2	Full time, 1 month, June and July	150.00 [1,2]
At: Massachusetts General Hospital	Gynecology 1	Full time, 3 to 12 months, throughout year	800.00 [1,12]
University of Minnesota, Center for Continuation Study, Minneapolis 14	Gynecology for General Physicians	Full time, 3 days, Mar. 6 to 8	20.00
Washington University School of Medicine, 4580 Scott Ave., St. Louis, Mo.	Obstetrics and Gynecology	Full time, 1 week, May	Not given
The Bronx Hospital, 1276 Fulton Ave., New York 56	Office Gynecology for General Practitioners	Part time, 10 weeks, Jan. 25 to April 5	5.00
University of Buffalo School of Medicine, 24 High St., Buffalo, N. Y.	Obstetrics and Gynecology	18 sessions, April	30.00
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			—
At: Long Island College of Medicine	Manikin	Part time, 8 weeks, April	30.00
At: Cumberland Hospital	Complications of Pregnancy	Part time, 4 weeks, April	20.00
New York Polyclinic Medical School and Hospital, 345 West 50th St., New York 19	Obstetrics and Gynecology including Manikin Obstetrics and Cadaver Gynecology	Full time, 2 months, April	250.00
New York University-Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	Seminar in Gynecology	Full time, 2 months	300.00
	561-B	Jan. 3 to Feb. 25	
	561-C	March 6 to April 29	
	561-D	May 1 to June 24	
	Gynecology Diagnosis and Office Treatment	Part time, 10 sessions	50.00
	562-C	Jan. 30 to Feb. 20	
	562-D	May 1 to 22	
	Gynecology Diagnosis and Office Treatment	Part time, 15 sessions	75.00
	563-C	Jan. 4 to Feb. 6	
	563-D	Feb. 13 to March 20	
	563-E	April 3 to May 8	
	563-F	May 15 to June 16	
	Gynecological Endocrinology	Part time, 24 sessions	150.00
	567-B	Jan. 3 to Feb. 25	
	567-C	Feb. 28 to April 25	
	567-D	May 2 to June 27	

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
OBSTETRICS AND GYNECOLOGY—Continued			
New York University-Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	Vaginal Cytology [5]	Part time, 16 sessions	100.00
	568-B	Jan. 3 to Feb. 23	
	568-C	Feb. 28 to April 20	
	568-D	May 2 to June 27	
	Surgical Anatomy as Applied to Gynecology (cadaver) [5]	Part time, 12 sessions	200.00
	569-C	Jan. 31 to Feb. 25	
	569-D	April 4 to 29	
	684-B Gynecology [5]	16 weeks, Jan. 9 to April 28	250.00
	685-A Gynecology	Part time, 12 sessions, May 1 to June 9	65.00
University of Oregon Medical School, 3181 S.W. Sam Jackson Park Rd., Portland	Obstetrics	Full time, 5 days, Feb. 20 to 23	50.00
Dallas Southern Clinical Society, 433 Medical Arts Bldg., Dallas 1, Texas At: Melrose Hotel, St. Paul's Hospital and Southwestern Medical School	Obstetrics-Gynecology	Full time, 3 days, January 9-11	25.00
University of Texas, Medical Branch, 900 Strand St., Galveston, Texas	Obstetrics	5 days, April 10 to 15	25.00
ONCOLOGY			
University of Texas, Medical Branch, 900 Strand St., Galveston, Texas	Tumor Course (Tumors of Urinary System and Male Genital System)	3½ days, March 1 to 4	20.00
OPHTHALMOLOGY			
College of Medical Evangelists, Boyle and Michigan Ave., Los Angeles, Calif.	Ophthalmology	Part time, 8 weeks, Jan. 31 to March 21	30.00
	Histology and Histo-Pathology of the Eye	Part time, 17 weeks, March 1 to June 28	75.00
The University of Florida, Graduate School of Medicine, 2033 Riverside Ave., Jacksonville, Fla. At: Macfadden-Deauville Hotel, Miami Beach, Fla.	Midwinter Seminar in Otolaryngology and Ophthalmology	1 week, Jan. 16 to 21	40.00
The Children's Memorial Hospital, 707 W. Fullerton Ave., Chicago 14, Ill.	Neuromuscular Anomalies of the Eyes	Part time, 6 days, Feb. 5 to 10	50.00
University of Kansas Medical Center, 39th and Rainbow, Kansas City 3, Kans.	Ophthalmology and Otolaryngology	5 days, 10 sessions, April 17 to 21	30.00
Tulane University of Louisiana, School of Medicine, 1430 Tulane Ave., New Orleans, La.	Continuation Course in Ophthalmology [5]	Full time, 1 week, Mar. 13 to 18	100.00
	Basic Training in Ophthalmology	Full time, 10 months, July 1	500.00
Ophthalmological Study Council, 243 Charles St., Boston 14, Mass. At: Westbrook Jr. Coll., Portland, Maine	The Lancaster Courses in Ophthalmology	Full time, 11 weeks, June 24 to Sept. 9	300.00
Tufts College Medical School, 30 Bennet St., Boston 11, Mass.	Ophthalmology	Part time, 4 weeks, Jan. 9 to Feb. 3	75.00 [1]
	Neuro-ophthalmology [5]	Full time, 5 days, March 6 to 10	75.00 [1]
	Ophthalmoscopy	Part time, 4 weeks, May 1 to 26	50.00 [1]
University of Michigan Medical School, Dept. of Postgraduate Medicine, Ann Arbor, Mich. At: University Hospital	Ophthalmology Conference	Full time, 3 days, April 24 to 26	Not given
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich.	Basic Ophthalmology	Full time, 36 weeks, Sept. (Class selected in March. 10 limit)	900.00
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16 At: Jewish Sanitarium and Hospital for Chronic Diseases	External Eye Diseases	Part time, 8 sessions, April	20.00
	Ophthalmoscopy	Part time, 8 weeks, April	20.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York At: Montefiore Hospital	Ophthalmology PM 61 Perimetry	Part time, 9 sessions, March 13 to May 8	30.00
	Elementary Ophthalmoscopy	Part time, 9 sessions, Jan. 2 to Feb. 27	30.00
At: Mt. Sinai Hospital	Symposium in Ophthalmology	Full time, 24 sessions, April 24 to May 20	200.00
New York Polyclinic Medical School and Hospital, 345 West 50th St., New York 19	Ophthalmology	Part time, 3 months or 6 weeks, Jan. and Apr.	75.00 (3 mos.) 50.00 (6 wks.)
	Ophthalmology, including cadaver Ophthalmology and Refraction	Part time, 3 months, Jan. and Apr.	275.00
	Clinical Ophthalmology and Otolaryngology	Full time, 3 months or 6 weeks, Jan. and Apr.	150.00 (3 mos.) 100.00 (6 wks.)
	Seminar in Ophthalmology and Otolaryngology	Full time, 1 week, April 17	50.00
	Ophthalmology and Otolaryngology including cadaver courses and refraction	Full time, 3 months, Jan. and Apr.	600.00
New York University Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	571-B Motor Anomalies of the Eye [5] Part I	Full time, 6 days	100.00
	512-B Part II	March 6 to 11 March 13 to 17	75.00
	Ophthalmic Neurology [5]	Part time, 5 days	
	573-B	Feb. 27 to March 3	50.00
	574-B Surgery of the Eye [5]	Full time, 6 days, March 20 to 25	100.00
	575-B Differential Diagnosis with the Slit Lamp [5]	Part time, Feb. 27 to March 3	75.00
	577-B External Diseases of the Eye [5]	Part time, 5 days, Feb. 27 to March 3	50.00
	68A2 Histopathology of the Eye [5]	Part time, 1 week, Jan. 9 to 14, April 3 to 7, May 8 to 12	100.00
	68A4 External Diseases of the Eye [5]	Part time, 4 weeks, Jan. 23 to Feb. 17, April 10 to May 5	50.00
	68A6 Physiologic Optics [5]	Part time, 6 weeks, Jan. 9 to Feb. 17, March 21 to April 21, May 15 to June 23	100.00

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	OPHTHALMOLOGY—Continued		
New York University Bellevue Medical Center Postgraduate Medical School, 477 Frst Ave., New York 16	68A7 Plastic Eye Surgery [8]	Part time, 1 month, Feb. 6 to March 3, May 1 to 26	100.00
	68A8 Anomalies of Extraocular Muscles [8]	Part time, 1 month, Feb. 7 to March 4, May 2 to 27	50.00
	68A9—Slit Lamp Microscopy [8]	Part time, 1 month, Feb. 7 to March 2, May 9 to June 1	50.00
	68A10 Ophthalmoscopy [8]	Part time, 1 month, Jan. 4 to 27, April 5 to 28, May 17 to June 9	50.00
	68A11 Glaucoma [8]	Part time, 8 weeks, Jan. 9 to Feb. 27, March 27 to May 15	50.00
	68A12 Operative Eye Surgery [8]	Part time, 1 month, Feb. 6 to March 3, May 1 to 26	100.00
	68A13—Refraction [8]	Part time, 2 months, Jan. 9 to March 3, April 3 to May 26	100.00
	68A14 Perimetry [8]	Part time, 1 month, Feb. 6 to March 3, May 8 to June 2	50.00
University of Oregon Medical School, 3181 S.W. Sam Jackson Park Rd., Portland, Ore.	Ophthalmology and Otolaryngology	Full time, 6 days, March 19 to 24	75.00
Gill Memorial Eye, Ear and Throat Hospital, 711 S. Jefferson St., Roanoke, Va.	23rd Annual Spring Congress [8]	Full time, 1 week, April 3 to 8	75.00
	ORTHOPEDIC SURGERY		
College of Medical Evangelists, Boyle and Michigan Ave., Los Angeles, Calif.	Minor Orthopedic Surgery	Part time, 8 weeks, April 6 to May 25	30.00
	General Orthopedic Surgery	Full time, 4 weeks, July 5 to Aug. 1	100.00
Yale University School of Medicine, 333 Cedar St., New Haven, Conn.	Surgery 204, Orthopedics	Part time, 10 sessions, Mar. 31 to June 2	35.00
University of Kansas Medical Center, 39th and Rainbow, Kansas City 3, Kans.	Orthopedic Surgery, Including Fractures and Industrial Surgery	Full time, 3 days, April 10 to 12	20.00
Tulane University School of Medicine, 1430 Tulane Ave., New Orleans, La.	Basic Science as Applied to Orthopedics	Full time, 5 months, Feb. 1	300.00
Harvard Medical School, Courses for Graduates, 25 Shattuck St., Boston 15			
At: Children's Hospital	Orthopedic Surgery 1	Full time, 1 to 12 months, throughout the year	800.00 [1,12]
At: Massachusetts General Hospital	Orthopedic Surgery 2	Full time, 3 to 12 months, throughout the year	800.00 [1,12]
At: Children's Hospital and Massachusetts General Hospital	Orthopedic Surgery 3	Full time, 1 to 3 months, throughout the year	200.00 [1,12]
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York			
At: Hospital for Joint Diseases	Survey of the Essentials of Orthopedics	Full time, 11 sessions, March 2 to May 11	100.00
New York University Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	581-A Seminar in Orthopedic Surgery [8]	Full time, 10 days, Jan. 9 to 20	125.00
	582-B Orthopedics in General Practice	Full time, 6 days, May 15 to 20	60.00
	583-B Functional Anatomy in Relation to Orthopedics	Part time, 2 weeks, Jan. 16 to 27	75.00
	OTOLARYNGOLOGY		
Tulane University of Louisiana, School of Medicine, 1430 Tulane Ave., New Orleans, La.	Continuation Course in Otolaryngology [8]	Full time, 1 week, Mar. 20 to 25	50.00
	Basic Training in Otolaryngology	Full time, 10 months July 1	500.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York			
At: Columbia Presbyterian Medical Center	Bronchoscopy	Part time, 3 weeks, April 10 to 28	250.00
New York Polyclinic Medical School and Hospital, 345 West 50th St., New York 19	Clinical Otolaryngology	Part time, 3 months or 6 weeks, Jan. and Apr.	100.00 (3 mos.) 75.00 (6 wks.)
New York University Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	68B1 Clinical Otology [8]	Part time, 4 weeks, Jan. 16 to Feb. 10, April 10 to May 5, May 22 to June 16	75.00
	68B2 Operative Surgery of the Ear and Surgery of the Nasal Sinuses [8]	Part time, 4 weeks, Jan. 30 to Feb. 25, April 24 to May 19	200.00
	68B3 Bronchoesophagology and Laryngeal Surgery [8]	Full time, 12 days, Feb. 6 to 18, May 1 to 13, June 5 to 17	250.00
	68B4 Anatomy of the Temporal Bone [8]	Part time, 4 weeks, Jan. 16 to Feb. 10, April 10 to May 5, May 22 to June 16	60.00
	591-B Seminar in Otolaryngology [8]	Full time, 2 weeks, April 17 to 28	150.00
	OTORHINOLARYNGOLOGY		
University of Minnesota, Center for Continuation Study, Minneapolis 14	Eye, Ear, Nose and Throat for General Physicians	Full time, 3 days, May 25 to 27	20.00
	Eye, Ear, Nose and Throat for Specialists	Full time, 6 days, June 26 to July 1	To be announced
New York University Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	592-A Seminar in Broncho Esophagology	Full time, 10 days, Feb. 13 to 24	200.00
	PARASITOLOGY		
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Parasitology	Part time, 6 weeks, arranged	75.00
	PATHOLOGY		
University of California Medical Center, San Francisco 22	Microscopy and Photomicrography (Part I-Critical Use of Microscope)	Part time, 20 weeks Jan. 19 to Mar. 30 (I)	To be announced
	(Part II-Photomicrography in	Part time, 20 weeks, April 6 to	To be announced

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	PATHOLOGY—Continued		
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Monochrome and in Color)	June 15 (II)	
	Personal Course in Surgical Pathology	Full time, 2 or 4 weeks, every 2 weeks	150.00 [21]
	Personal Course in Surgical Pathology on Selective Subjects	Arranged	15.00 [20]
	Six month Clinical Course in Gross and Surgical Pathology	Full time, 6 months, by appointment	500.00
	Gross and Microscopic Pathology	Full time, 12 months, by appointment	500.00
	Gross and Surgical Pathology	Full time, 12 months, by appointment	900.00
	Personal Course in Surgical Pathology, Gross and Microscopic	Part time, 10 weeks, March 15	100.00
	Biochemical Background of Clinical Medicine	Part time, 10 weeks, March 15	100.00
	Personal Course in Pathology and Laboratory Medicine	Part time, 10 weeks, April 12	100.00
	General Pathology	Part time, 10 weeks, March 17	100.00
Michael Reese Hospital Postgraduate School, 29th St. and Ellis Ave., Chicago 16, Ill.	Pathologic Diagnosis	Part time, 10 weeks, April 5 to June 7	50.00
University of Maryland, School of Medicine, 31 S. Greene St., Baltimore 1, Md.	Pathology "B"	Full time, 6 months, arranged	150.00
	Pathology "C"	Full time, 6 months, arranged	200.00 [13]
Harvard Medical School, Courses for Graduates, 25 Shattuck St., Boston 15			
At: Free Hospital for Women	Pathology of Obstetrics and Gynecology	Part time, 21 sessions, Jan. 5 to May 25	150.00
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich.	Histopathology of Ear, Nose and Throat	Part time, 3 months, December to March	25.00
	Urologic Pathology	Part time, 12 weeks, March to June	50.00
	Gynecologic Pathology	Part time, 12 weeks, March to June	50.00
	Pathology of Neoplasms	Part time, 12 weeks, December to March	50.00
	Neuropathology	Part time, 12 weeks, December to March	50.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York		Part time, 15 sessions, Jan. 28 to May 13	100.00
At: Mt. Sinai Hospital	Surgical Pathology		
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Pathology	Part time, 16 weeks, arranged	200.00
New York Polyclinic Medical School and Hospital, 345 W. 50th St., New York 19	Practical Laboratory Instruction in Pathology and Bacteriology	Arranged	Arranged
New York University Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	441-B Gynecological Pathology [8]	Part time, 16 sessions, Jan. 17 to March 9	100.00
	442-B Surgical Pathology [8]	Part time, 30 sessions, March 14 to June 22	200.00
	686-B Pathology for Surgeons	Part time, 12 sessions, Feb. 20 to March 30	50.00
	687-B Histopathology for Gynecologists	Part time, 12 sessions, Feb. 21 to March 31	50.00
	444-A Pathology in Relation to Orthopedic Surgery	Part time, 12 sessions, Feb. 7 to April 25	90.00
	PEDIATRICS		
University of California Medical School, University Extension, Los Angeles, Calif.	Diagnosis and Prevention of Infectious Diseases of Childhood	Part time, 16 weeks, Feb. through May	No fee
University of California Medical Center, San Francisco 22	Special Problems in Pediatrics	Full time, 5 days, Feb. 6 to 10	50.00
	Pediatrics 200 General Pediatrics	Part time, 12 sessions, Jan. 5 to Mar. 23	45.00
Yale University School of Medicine, 333 Cedar St., New Haven, Conn.	Child Study S-201	Part time, 12 sessions, Jan. 4 to Mar. 22	25.00
	Biology and Psychology of Growth and Development and Pediatric Psychology		
At: Southbury Training School	Pediatrics S-201 Pediatric Neurology	Part time, 4 sessions, Apr. 21 to May 12	15.00
George Washington University School of Medicine, 1335 H St., N.W., Washington 5, D. C.	Pediatrics	Full time, 1 week, Mar. 6 to 10	50.00
	Formal Intensive Course in Pediatrics	Full time, 2 weeks, April 3	100.00
At: Children's Hospital	Informal Course in Clinical Pediatrics	Full time, 2 weeks or more, by appointment	60.00 [22]
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Intensive Course in Cerebral Palsy	Full time, 2 weeks, July 31	150.00
	Personal Course in Diagnosis and Treatment of Congenital Malformations of the Heart	Full time, 2 weeks, to be announced	150.00
Michael Reese Hospital Postgraduate School, 29th St. and Ellis Ave., Chicago 16, Ill.	Recent Advances in Pediatrics	Full time, 2 weeks, May 8 to 20	100.00
University of Kansas Medical Center, 39th and Rainbow, Kansas City 3, Kans.	Pediatrics	Full time, 3 days, Feb. 13 to 15	20.00
University of Louisville School of Medicine, 101 Chestnut St., Louisville, Ky.			
At: Louisville Children's Hospital	Pediatrics	Part time, 8 sessions, May and June	Not given
Louisiana State University School of Medicine, 1542 Tulane Ave., New Orleans, La.	Refresher Course in Pediatrics	Full time, 3 days, March 20 to 22	None
Tulane University of Louisiana, School of Medicine, 1430 Tulane Ave., New Orleans, La.	Continuation Course in Pediatrics [8]	Full time, 5 days, Feb. 6 to 10	50.00
Harvard Medical School, Courses for Graduates, 25 Shattuck St., Boston 15			
At: Children's Hospital	Pediatrics 2	Full time, 4 months, Jan. 3 to Apr. 28	500.00 [1]
At: Massachusetts General Hospital	Pediatrics 3	Full time, 2 weeks, June 12 to 24	125.00 [1]
University of Michigan Medical School, Dept. of Postgraduate Medicine, Ann Arbor, Mich.			
At: University Hospital	Pediatrics	Full time, 3 days, April 12 to 14	Not given
University of Minnesota, Center for Continuation Study, Minneapolis 14	Pediatrics for General Physicians	Full time, 3 days, Jan. 26 to 28	20.00
	Pediatrics for Specialists	Full time, 3 days, Apr. 17 to 19	20.00
Joint Committee on Post-graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			
At: Beth El Hospital	Clinical Pediatrics	Part time, 10 sessions, April	30.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Clinical Pediatrics	1 month, 3 monhts, 6 monhts, 9 months, all year around	150.00 [23]

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	PEDIATRICS—Continued		
New York University-Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	Clinical Pediatrics 612-D 612-B 612-C	Full time, 4 weeks May 1 to 27 Jan. 9 to Feb. 4 March 6 to April 1	150.00
	Practical Clinical Pediatrics 613-B 613-C 613-D	Full time, 4 weeks Feb. 6 to March 4 April 3 to 29 May 29 to June 24	125.00
	Review of Clinical Pediatrics 612-B 614-C 614-D	Full time, 6 days Feb. 13 to 18 April 17 to 22 June 5 to 10	60.00
	688-B Pediatrics	Part time, 16 sessions, March 7 to April 28	50.00
	616-A Pediatric Allergy	Part time, 10 sessions, Feb. 7 to April 11	60.00
	619-A Pediatric Cardiology	Part time, 10 sessions, April 5 to June 7	60.00
Southern Pediatric Seminar, Saluda, N. C.	Southern Pediatric Seminar	2 weeks, July 17 to 29	Not given
University of Texas, Medical Branch, 900 Strand St., Galveston, Texas	Pediatrics	5 days, March 20 to 25	25.00
University of Wisconsin Medical School, 418 N. Randall Ave., Madison, Wis.	Postgraduate Course in Pediatrics	Full time, 5 days, Jan. 9 to 13	25.00
	PHYSICAL MEDICINE		
New York Polyclinic Medical School and Hospital, 345 W. 50th St., New York 19	Physical Medicine	4 weeks, arranged	100.00
Joint Committee on Post-graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16 At: Kings County Hospital	Physical Medicine	Part time, 5 weeks, April	20.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York At: Columbia Presbyterian Medical Center	Basic Training in Physical Medicine and Rehabilitation	Full time, 3½ months, Jan. 2 to April 22	250.00
New York University-Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	Physical Medicine and Rehabilitation 621-B	Full time, 9 months Jan. 16 to Oct. 6	600.00
	Physical Medicine and Rehabilitation 622-B 622-C	Full time arranged Jan. 15 April 15	200.00 [27]
	PHYSIOLOGY		
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Clinical Physiology a Basic Course	Part time, 10 weeks, March 14	100.00
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich.	Blood	Part time, 24 weeks, Dec. to June	30.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York At: Mt. Sinai Hospital	Physiology of Water and Electrolyte Balance	Part time, 20 sessions, Feb. 1 to April 21	40.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Physiology and Chemistry of the Gastrointestinal Tract and Digestion	1 month, arranged	150.00
	Physiology of the Endocrine System	1 month, arranged	75.00
	Physiology of the Special Senses	1 month, arranged	75.00
	Physiology of the Nervous System	2 weeks, arranged	50.00
	Physiology of Respiration	1 month, arranged	75.00
	Physiology of the Cardio-Vascular System and Blood	1 month, arranged	75.00
New York University-Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	5420-B Normal and Pathological Physiology, Functional and Chemical Aspects	Full time, 10 days, March 20 to 31	115.00
	545-A Normal and Pathological Physiology Functional and Chemical Aspects	Part time, 7 sessions, Jan. 4 to Feb. 15	40.00
Southwestern Medical School of The University of Texas, 2211 Oak Lawn, Dallas, Texas.	Pathological Physiology	Part time, 18 months during school session	10.00 [33]
	PHYSIOLOGICAL CHEMISTRY		
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich.	Physical Biochemistry	Part time, 12 weeks, March to June	25.00
	Physiological Chemistry Seminar	Part time, 12 weeks, quarterly	15.00
	Intermediary Metabolism	Part time, 12 weeks, December to March	15.00
	PLASTIC SURGERY		
Chicago School of Prosthetics, 1260 Lake Shore Drive, Chicago, Ill.	Plastic Surgical Prosthetics for M.D.'s	Full time, 6 weeks, 1st Monday of every month	500.00
Manhattan General Hospital, 307 Second Ave., New York	Rhinoplastic and Otoplastic Surgery	Full time, 4 weeks, March	500.00
	POLIOMYELITIS		
National Foundation for Infantile Paralysis, 120 Broadway, New York 5 At: Orthopedic Hospital, 2400 Flower St., Los Angeles	Poliomyelitis: Team Approach to Total Care [34]	Full time, 1 week, Jan. 30 to Feb. 2, May 15 to May 18	10.00 [1] (per wk.)
At: D. T. Watson School of Physiatrics, Leetsdale, Pa. and University of Pittsburgh Medical Center	Essentials in Care of Acute Poliomyelitis	Full time, 5 days, each summer	10.00
At: Children's Medical Center, 300 Longwood Dr., Boston	Infantine Paralysis Acute and Early Convalescent Stages	Full time, June 12 to 16	50.00
At: Georgia Warm Springs Foundation	Care of Acute and Convalescent Poliomyelitis	Full time, 4 days, with evening sessions, 1st Monday, Jan., April, July	None
At: City Hospital, Cleveland, Ohio	Poliomyelitis Training Course	Full time, 5½ days, July	None
At: University of Colorado Medical Center, Denver	Postgraduate Course in Poliomyelitis for Physicians	Full time, 1 week, March 13 to 18, May 22 to 27	75.00 [34,37]
At: Stanford University Hospital, San Francisco, Calif.	Physicians Course in Treatment of Poliomyelitis	Full time, 3 days, Summer	None

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
PROCTOLOGY			
College of Medical Evangelists, Graduate School of Medicine, 312 N. Boyle Ave., Los Angeles 33, Calif.	Proctology	Part time, 10 weeks, Jan. 5 to March 9	50.00
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Lecture and Cadaver Course in Proctology	Part time, 5 weeks, Feb. 24, May 5	75.00
	Practical and Didactic Course in Proctoscopy and Sigmoidoscopy	Part time, 3 weeks, Jan. 17, Feb. 7, Mar. 14, Apr. 18, June 13, July 11	50.00
Tufts College Medical School, 30 Bennet St., Boston 11, Mass.	Proctology I	Full time, 5 days, April 24 to 28	40.00 [1]
	Proctology II	Full time, 4 weeks, May 1 to 27	250.00 [1]
	Proctology III	Part time, 1 or 2 months, arranged	100.00 [1]
University of Minnesota, Center for Continuation Study, Minneapolis 14	Proctology for General Physicians	Full time, 6 days, May 22 to 27	35.00
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			
At: Jewish Hospital	Proctology	Part time, 6 weeks, April	40.00
New York Polyclinic Medical School and Hospital, 345 W. 50th St., New York 19	Proctology, Gastroenterology and Operative Proctology (cadaver)	Part time, 6 weeks, Jan. and Apr.	200.00
New York University-Bellevue Medical Center Postgraduate Medical School, 477 First Ave., New York 16	Proctology	Part time, 6 weeks, Jan. and Apr.	75.00
	664-B	Part time, 8 weeks Jan. 9 to Mar. 4	100.00
	664-C	April 4 to May 27	
PUBLIC HEALTH			
University of Kansas Medical Center, 39th and Rainbow, Kansas City 3, Kans.	Public Health	Full time, 3 days, March 27 to 29	8.00
University of Michigan, School of Public Health, Ann Arbor, Mich.	Public Health	4 months, Feb. 13 to June 2	Not given
PULMONARY DISEASE			
Yale University School of Medicine, 333 Cedar St., New Haven, Conn.	Medicine 209 Diseases of the Chest	Part time, 11 sessions, Mar. 15 to May 24	45.00
University of Florida, Graduate School of Medicine, 2033 Riverside Ave., Jacksonville, Fla.[30]			
At: State Tuberculosis Sanatarium, Orlando, Fla.	Seminar on Tuberculosis	3 days, May	5.00
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Technic of Physical Examination and Diagnosis of the Chest	Part time, 8 weeks, April 19	60.00
Michael Reese Hospital, 29th St., and Ellis Ave., Chicago 16, Ill.	Recent Advances in Diseases of the Chest	Part time, 10 sessions, Jan. 9 to March 13	50.00
State Sanatorium, Sanatorium, Mississippi	Internal Medicine and Chest Diseases	Full time, 1 to 52 weeks, year around	None
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York			
At: Mt. Sinai Hospital	Diseases of the Chest	Full time, 6 days, Feb. 14 to 20	60.00
At: Montefiore Hospital	Diseases of the Chest	Part time, 20 sessions, Jan. 6 to May 19	100.00
At: Bellevue Hospital	Diseases of the Chest	Full time, 9 weeks, Feb. 1 to March 31	150.00
At: Columbia Presbyterian Medical Center	Physiologic Therapy in Chest Diseases	Full time, 6 days, Jan. 23 to 28	40.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Pulmonary Tuberculosis	Full time, 3 weeks, arranged	175.00
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	548-A Acute and Chronic Diseases of the Chest	Part time, 8 sessions, January 5 to February 23	50.00
	5416-A Acute and Chronic Pulmonary Diseases	Full time, 5 days, Feb. 27 to March 3	55.00
The Edward L. Trudeau Foundation, 7 Church St., Saranac Lake, N. Y.	Trudeau School	Full time, 4 weeks, May 1	100.00
At: Saranac Lake, N. Y.			
RADIOLOGY			
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Clinical and Lecture Course in Diagnostic Roentgenology and Fluoroscopy	Full time, 2 weeks, first Monday of every month	125.00
	Routine Clinical Course in Diagnostic Roentgenology	Full time, 2 weeks, third Monday of every month	70.00
	High and Low Voltage X-ray Therapy	Full time, 1 or more weeks, first of every week	60.00 [23]
	Diagnostic Roentgenology	Full time, 8 months by appointment	500.00
	Diagnostic Roentgenology and Therapy	Full time, 12 months, by appointment	750.00
	Clinical Interpretation of X-ray Findings	Part time, 10 weeks, March 16	80.00
University of Kansas, Medical Center, 39th and Rainbow, Kansas City 3, Kans.	Radiology	Full time, 3 days, Jan. 16 to 18	20.00
	X-Ray—Diagnosis and Fluoroscopy	Part time, 6 days, March 23 to Apr. 27	35.00
Harvard Medical School, Courses for Graduates, 25 Shattuck St., Boston			
At: Peter Bent Brigham Hospital	Radiology 1	Full time, 1 month, Jan. thru July	150.00 [1] (a month)
At: Massachusetts General Hospital	Radiology 2	Full time, 1 month, throughout the year	150.00 [1] (a month)
At: Boston City Hospital	Radiology 3	Full time, 1 month, throughout the year	150.00 [1] (a month)
At: Children's Hospital	Pediatric Radiology	Full time, 1 month, throughout the year	150.00 [1] (a month)
Tufts College Medical School, 30 Bennet St., Boston 11, Mass.	Radiology	Full time, 4 days, May 23 to 26	35.00 [1]
University of Michigan Medical School, Dept. of Postgraduate Medicine, Ann Arbor, Mich.			
At: University Hospital	Diagnostic Roentgenology	Full time, 5 days, April 17 to 21	Not given
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich.			
At: Receiving Hospital	Medical X-Ray Conference	Part time, 3 months, quarterly	15.00
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island College of Medicine, 1313 Bedford Ave., Brooklyn 16			
At: Jewish Hospital	Cardiovascular Roentgenology	Part time, 8 weeks, April	20.00
At: Beth El Hospital	Roentgen Diagnosis in Gastroenterology	Part time, 8 weeks, April	20.00
At: Jewish Sanitarium and Hospital for Chronic Diseases	Clinical Radiology	Part time, 10 weeks, April	20.00

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Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	RADIOLOGY—Continued		
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York At: Columbia Presbyterian Medical Center	Radiology PM 1	Part time, 9 weeks, Jan. 9 to March 10	25.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Diagnostic Roentgenology	Part time, 6 weeks, every six weeks, except summer	150.00
	Radium and Roentgen Therapy	Part time, 6 weeks, arranged	150.00
New York Polyclinic Medical School and Hospital, 345 W. 50th St., New York 19	Radiology	Full time, 3 months, and 12 months Jan. and Apr.	300.00 (3 mos.) 1000.00 (12 mos.)
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	68C2 Roentgenology [8]	Part time, 2 weeks, Jan. 16 to 27, Feb. 27 to March 10, April 17 to 28, May 22 to June 2	75.00
	68C3 Roentgenology [8]	Part time, 1 week, Jan. 16 to 20, Feb. 27 to March 3, April 17 to 21, May 22 to 26	50.00
	6810-B Roentgenology	Part time, 16 sessions, March 7 to April 27	50.00
	Diagnostic Radiology 652-B 652-C	Part time, 12 weeks, Jan. 9 to March 31, April 10 to June 30	100.00
	654-A Radiobiology	Part time, 20 sessions, Feb. 2 to June 15	125.00
University of Oregon Medical School, 3181 S.W. Sam Jackson Park Rd., Portland	Radiology	Full time, 5 days, April 17 to 21	50.00
	SURGERY		
University of California, University Extension, 405 Hilgard Ave., Los Angeles 24	General Surgical Pathology Review	Part time, 8 weeks, Mar. 4 to Apr. 22	75.00
College of Medical Evangelists, Boyle and Michigan Ave., Los Angeles, Calif.	Thoracic Surgery	Part time, 4 sessions, May 10	20.00
Yale University School of Medicine, 333 Cedar St., New Haven, Conn.	Surgery 201 Traumatic Surgery	Part time, 12 sessions, Jan. 4 to Mar. 22	45.00
George Washington University School of Medicine, 1335 H St., N.W., Washington, D. C. At: George Washington University Hospital	Surgical Physiology	1 week, Mar. 20 to 24	50.00
American College of Surgeons, 40 East Erie St., Chicago, Ill.			
At: Belleview Biltmore Hotel, Belleair, Florida	Sectional Meeting	Jan. 9 and 10	Not given
At: Cortez Hotel, El Paso, Texas	Sectional Meeting	Feb. 13 and 14	Not given
At: Brown Hotel, Louisville, Ky.	Sectional Meeting	Feb. 20 and 21	Not given
At: Hotel Wm. Penn, Pittsburgh, Pa.	Sectional Meeting	March 14 and 15	Not given
At: Mt. Royal Hotel, Montreal, Que.	Sectional Meeting	March 20 and 21	Not given
At: Fort Garry Hotel, Winnipeg, Man.	Sectional Meeting	April 3 and 4	Not given
At: Olympic Hotel, Seattle, Wash.	Sectional Meeting	April 10 and 11	Not given
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Intensive Course in Surgical Technique	Full time, 2 weeks, Jan. 23, Feb. 20, Mar. 20, Apr. 17, May 15 and June 19	200.00
	Surgical Technique, Surgical Anatomy, Clinical Surgery, Preoperative and Postoperative Management	Full time, 4 weeks, Feb. 6, Mar. 6, Apr. 3, May 1, June 5, July 10	300.00
	Personal Course in General Surgery	Full time, 2 weeks, to be announced	To be announced
	Surgery of Colon and Rectum	Full time, 1 week, Mar. 6, Apr. 10, May 15, June 5	100.00
	Intensive Course in Surgical Anatomy, Clinical Surgery, Preoperative and Postoperative Management	Full time, 2 weeks, Feb. 20, Mar. 20, Apr. 17, May 15, June 19	150.00
	Personal Course in Esophageal Surgery	Full time, 1 week, June 5	150.00
	Personal Course in Gallbladder Surgery	Full time, 10 hours, Apr. 24, June 19	100.00
	Personal Course in Breast and Thyroid Surgery	Full time, 1 week, June 26	150.00
	Treatment of Varicose Veins	Full time, 10 hours, Every Monday	40.00
	Intensive Review Course Basic Principles in General Surgery	Full time, 2 weeks, Apr. 3	200.00
	Personal Course in Thoracic Surgery	Full time, 1 week, June 12	100.00
	Personal Course in Esophageal Surgery	Part time, 10 weeks, April 4	150.00
	Basic Principles Concerned in General Surgery	Part time, 10 weeks, March 24	100.00
	Treatment of Varicose Veins	Part time, 2 weeks, First and Third Wednesday each month	40.00
	Personal Course in Thoracic Surgery	Part time, 10 weeks, April 5	100.00
	Personal Course in Surgical Diagnosis, Preoperative and Postoperative Management	Part time, 10 weeks, April 5	100.00
	Personal Course in Clinical Surgery	Part time, 10 weeks, March 9	150.00
	Surgical Technique with Practice	Part time, 10 weeks, Feb. 15	200.00
Michael Reese Hospital Postgraduate School, 29th St. and Ellis Ave., Chicago 16, Ill.	Recent Advances in Surgery	Full time, 1 week, April 17 to 22	50.00
State University of Iowa, College of Medicine, Iowa City, Iowa At: University Hospital	General Surgery	4 days, May 9 to 12	50.00
University of Kansas Medical Center, 39th and Rainbow, Kansas City 3, Kans.	Surgery, including Urology	Full time, 3 days, Feb. 27 to Mar. 1	20.00
Tulane University of Louisiana, School of Medicine, 1430 Tulane Ave., New Orleans, La.	Continuation Course in General Surgery and Traumatology	Full time, 1 week, Jan. 9 to 14	50.00
Harvard Medical School, Courses for Graduates, 25 Shattuck St., Boston, Mass. At: Massachusetts General Hospital	Experimental and Clinical Surgery	Full time, 6 to 12 months, throughout the year	800.00 [1] (12 mos.)

References will be found on page 1095.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1950 to July 15, 1950—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	SURGERY—Continued		
Tufts College Medical School, 30 Bennet St., Boston 11, Mass.	Principles of Surgical Technique [8]	Part time, 6 weeks, May 22 to June 30	250.00 [1]
	Surgical Anatomy [8]	Part time, 8 weeks, March 6 to April 29	250.00 [1]
Wayne University College of Medicine, 1512 St. Antoine St., Detroit, Mich.	Seminar in Surgery	Part time, 3 months, quarterly	15.00
Columbia University College of Physicians and Surgeons, 630 West 168th St., New York At: Columbia Presbyterian Medical Center	Recent Developments in Surgery	Full time, 5 days, May 15 to 19	50.00
New York Medical College, Flower and Fifth Ave. Hospitals, 20 East 106th St., New York 29	Surgical Technique	Arranged, 50 hours	375.00
	Thoracic Surgery	Full time, 3 weeks, arranged	325.00
New York Polyclinic Medical School and Hospital, 345 W. 50th St., New York 19	Clinical and Operative (cadaver) Surgery	Full time, 6 weeks, arranged	200.00
	Clinical Surgery	Full time, 6 weeks, Jan. and Apr.	100.00
	Combined Surgical Course including cadaver Surgery and Gynecology	Full time, 3 months, Jan. and Apr.	350.00
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	661-B Review of General Surgery [8]	Full time, 4 weeks, April 3 to 29	300.00
	662-A The Basic Problems in Cancer Therapy for Surgeons [8]	Full time, 12 days, Jan. 23 to Feb. 4	200.00
	663-B Recent Advances in Surgery	Full time, 10 days, March 6 to 16	175.00
	6812-B Diagnosis and Treatment of Trauma	Full time, 6 days, May 8 to 13	100.00
	6813-B Surgery of the Hand	Full time, 5 days, March 20 to 24	75.00
	6814-B Seminar in Traumatic Surgery [8]	Full time, 2 weeks, March 6 to 18	150.00
	6815-A Surgery of Trauma	Part time, 10 sessions, April 6 to June 8	100.00
Frank E. Bunts Educational Institute, 2020 East 93rd St., Cleveland 6, Ohio	Practical Problems in General Surgery	2½ days, March 23 to 25	15.00
University of Oregon Medical School, 3181 S.W. Sam Jackson Park Rd., Portland, Ore.	1. General Surgery	Full time, 5 days	50.00
	2. Orthopedic Surgery	(1) March 6 to 10, (2) April 3 to 7	
	THERAPY		
University of California Medical Center, San Francisco 22	Applied Therapeutics	Full time, 3 days, Jan. 30 to Feb. 1	To be announced
Yale University School of Medicine, 333 Cedar St., New Haven, Conn.	Therapeutics 200 Modern Drugs and Common Problems in Therapy	Part time, 12 sessions, Feb. 7	45.00
University of Michigan School of Medicine, Dept. of Postgraduate Medicine, Ann Arbor, Mich. At: University Hospital	Recent Advances in Therapeutics	Full time, 3 days, March 30 to April 1	Not given
Joint Committee on Post-Graduate Education, Medical Society of the County of Kings, Long Island Medical School, 1313 Bedford Ave., Brooklyn 16 At: Jewish Sanitarium and Hospital for Chronic Diseases	Clinical Therapeutics	Part time, 7 weeks, April	40.00
	UROLOGY		
College of Medical Evangelists, Graduate School of Medicine, 312 N. Boyle Ave., Los Angeles 33, Calif.	General Urology	Part time, 9 weeks, Jan. 4 to Mar. 1	35.00
Cook County Graduate School of Medicine, 427 S. Honore St., Chicago 12, Ill.	Intensive Course in Urology	Full time, 2 weeks, April 17	225.00
	Practical Course in Cystoscopy	Full time, 10 days, Jan. 9, Jan. 23, Feb. 6, Feb. 20, March 6, March 20, April 3, May 1, May 15, June 5, June 19 and July 10	150.00
American Urological Association, 102 Second Ave., N.W., Rochester, Minn.[32] At: Baltimore, Md.	Graduate Course in Urology	Full time, 5 days, February	50.00
New York University-Bellevue Medical Center, Postgraduate Medical School, 477 First Ave., New York 16	671-B Advanced Course in Urology [8]	Full time, 2 months, Jan. 3 to Feb. 25	300.00
	6816-A Urology	Part time, 6 weeks, March 6 to April 15	100.00
Oswald Swinney Lowsley Foundation, Inc., 111 E. 71st St., New York, N. Y. At: St. Clares Hospital	Postgraduate Course in Urology	Full time, 1 year, Jan. 1	750.00
American Urological Association, South Central Branch, Memphis, Tenn. At: St. Louis, Mo.	Postgraduate Urological Convention	Full time, 5 days, Jan. 3 to 7	50.00
	VENEREAL DISEASE		
Yale University School of Medicine, 333 Cedar St., New Haven, Conn.	Medicine 211 Diagnosis and Treatment of Syphilis and Gonorrhea	Part time, 5 sessions, Mar. 21 to Apr. 18	20.00
United States Public Health Service, Washington, D. C. At: Institute for the Study of Venereal Disease, University of Pennsylvania, Philadelphia 4	4 weeks Intensive Review Course	Arranged	Arranged
	6 Months Essential Basic Training Course	Arranged	Arranged

1. Plus $5 registration fee.
2. Each section.
3. Each month.
4. Per quarter. $12 per week for short periods.
5. Each session.
6. $5 to nonmembers.
7. Training fellow is paid $10 per diem while on duty.
8. Specialists only.
9. Plus $2 registration fee.
10. Candidates in training only.
11. Senior candidates in training only.
12. For 12 months.
13. $10 Laboratory fee.
14. In conjunction with Connecticut State Medical Society.
15. Fee for registration and certificate.
16. $20 registration fee.
17. Waived if student sponsored by NFIP.
18. In conjunction with Illinois State Dept. of Public Health.
19. For 2 weeks; $125 for 4.
20. Per hour.
21. Four weeks $250.
22. One month $100.
23. One week—2 weeks $110, 1 month $200, 2 months $300.
24. Per year.
25. Stated 2 week period may be followed by additional studies at $100 per week. The course may also be taken by Philadelphia area physicians on six consecutive Thursdays, 36 hours at $150.
26. Four weeks, $175 for 8 weeks, $250 for 12 weeks.
27. Twelve weeks, $400 for 24 weeks. Part time variable duration at $75 per month.
28. In conjunction with Florida Medical Association, Florida State Board of Health, Miami Heart Association and Florida Heart Association.
29. Florida Medical Association, Clinical Society of District Association of Duval County and Florida State Board of Health.
30. Florida Medical Association and Florida State Board of Health.
31. Six months. $150, 3 months (for veterans). $500, 6 months; $250, 3 months (nonveterans).
32. Auspices of University of Maryland and Johns Hopkins University School of Medicine.
33. For 1 month; $250 for 3 months; $450 for 6 months and $650 for 9 months.
34. Limited to orthopedists and/or resident orthopedists.

Current Medical Literature

AMERICAN

The Association library lends periodicals to members of the Association and to individual subscribers in continental United States and Canada for a period of three days. Three journals may be borrowed at a time. Periodicals are available from 1938 to date. Requests for issues of earlier date cannot be filled. Requests should be accompanied by stamps to cover postage (6 cents if one and 18 cents if three periodicals are requested). Periodicals published by the American Medical Association are not available for lending but can be supplied on purchase order. Reprints as a rule are the property of authors and can be obtained for permanent possession only from them.

Titles marked with an asterisk (*) are abstracted below.

Alabama State Medical Assn. Journal, Montgomery

19:1-32 (July) 1949

Poliomyelitis: Follow-Up Results of Localized Epidemic (1941) Report of 123 Cases. H. E. Conwell.—p. 1.
Treatment of Malignant Melanoma. J. O. Morgan.—p. 7.
Time to Stand Up and Be Counted! G. F. Lull.—p. 12.
Frequently Overlooked Cause of Blindness in Infants: Congenital Glaucoma. A. Callahan.—p. 13.

American Heart Journal, St. Louis

38:1-160 (July) 1949

*Measurement of Coronary Blood Flow, Oxygen Consumption and Efficiency of Left Ventricle in Man. R. J. Bing, M. M. Hammond, J. C. Handelsman and others.—p. 1.
Role of Desiccated Thyroid and Potassium Iodide in Cholesterol-Induced Atherosclerosis of Chicken. D. Dauber, L. Horlick and L. N. Katz. —p. 25.
Production of Arteriosclerosis in Dogs by Cholesterol and Thiouracil Feeding. A. Steiner, F. E. Kendall and M. Bevans.—p. 34.
Surgical Treatment of Aneurysms. G. H. Pratt.—p. 43.
*Plasma and Blood Infusion Following Myocardial Infarction. J. J. Sampson and I. M. Singer.—p. 54.
Sounds and Murmurs in Coarctation of Aorta: Study by Auscultation and Phonocardiography. B. G. Wells, M. B. Rappaport and H. B. Sprague. —p. 69.
Interatrial Septal Defect. R. S. Cosby and G. C. Griffith.—p. 80.
Relationship Between Reduction in Coronary Flow and Appearance of Electrocardiographic Changes. R. Wégria, M. Segers, R. P. Keating and H. P. Ward.—p. 90.
Observations on Potential Variations of Cavities of Right Side of Human Heart. M. J. Kert and S. W. Hoobler.—p. 97.
Duration of Q-T Interval in Normal Pregnant Women. Z. H. Benjamin. —p. 119.

Measurement of Coronary Blood Flow.—Bing and his associates determined the left ventricular coronary blood flow and left ventricular oxygen consumption per unit weight in 26 patients by the nitrous oxide method in conjunction with catheterization of the coronary sinus. Catheterization of the coronary sinus in man is difficult because of anatomic variations in the structure of the right auricle. Only 25 per cent of attempted catheterizations are successful. Despite technical difficulties, catheterization of the coronary sinus led to no untoward consequences. In a normal subject the left ventricular coronary blood flow and the left ventricular oxygen consumption, per 100 Gm. per minute, averaged 65 and 7.8 cc., respectively. The average oxygen extraction was 12 volumes per cent. In anemic patients the left ventricular coronary blood flow was slightly increased, whereas the left ventricular oxygen consumption and the left ventricular oxygen extraction were reduced. In patients with hypertensive vascular disease coronary blood flow, oxygen consumption and oxygen extraction of the left ventricle were normal. In patients with coarctation of the aorta the average coronary blood flow, oxygen consumption and oxygen extraction of the left ventricle were all increased. In congestive failure due to mitral stenosis and insufficiency and to arteriosclerotic heart disease the left ventricular coronary blood flow was normal, but the oxygen extraction was slightly elevated. Despite clinical and radiologic evidence of left ventricular enlargement, the oxygen consumption was only slightly elevated. Left ventricular coronary blood flows were increased in patients with aortic insufficiency, arteriovenous fistula and hyperthyroidism. The left ventricular coronary blood flow was normal in a patient with aortic stenosis. The left ventricular oxygen consumption was normal in patients with aortic stenosis, arteriovenous fistula and hyperthyroidism. It was elevated in the patient with aortic insufficiency. In 1 patient having coronary occlusion with myocardial damage the coronary flow, oxygen extraction and oxygen consumption of the left ventricle were greatly reduced. The results indicate that chronic increase in the energy requirements of the heart were met not by an increase in the oxygen consumption per unit weight but by an increase in the total oxygen consumption due to hypertrophy. The efficiency of the failing heart was low as a result of greatly decreased work in conjunction with slightly increased oxygen consumption.

Plasma and Blood Infusion Following Myocardial Infarction.—According to Sampson and Singer, myocardial infarction is often followed by a shocklike state with fall in blood pressure. Drugs such as caffeine, niketharnide, ephedrine and epinephrine have been found either ineffective or only transiently beneficial. Pallid cyanosis, faintness, sweating and abrupt fall in blood pressure or critical hypotension led the authors to resort to infusion of blood in patients with myocardial infarction. Eleven patients, 7 men and 4 women, ranging in age from 44 to 65 years, were given thirty blood and whole plasma intravenous infusions by the gravity method, because they exhibited one or more shocklike episodes following acute myocardial infarction. Although only 1 of the 11 patients recovered and was discharged asymptomatic, the infusions seemed to have carried 4 of them over critical periods of hypotension. Death resulted later from secondary infarction or heart failure. No apparent harmful effects of infusion of blood or plasma were demonstrated except in a single patient with a high initial venous pressure. The infusions seemed to be more effective when the systolic blood pressure was under 85 mm. of mercury. They were likewise more effective when given less than four hours after extreme hypotension developed and at rates of at least 2 and preferably from 2.5 to 5 cc. (or 8 cc.) per minute. Blood or plasma infusions probably cannot alter the immediate destruction of the myocardium by ischemia. The favorable effects may be due to: (1) reduction of the effects secondary to shock (improved irrigation of the coronary bed); (2) maintenance of normal or excess venous return to the heart to preserve cardiac output in the presence of a dilated left ventricle, and (3) reduction of the area of dilatation of the myocardium surrounding the infarcted zone, a process which may possibly cause or increase the shocklike symptoms and hypotension.

American Journal of Medical Sciences, Philadelphia

218:1-120 (July) 1949

Studies of Effects of Flavonoids on Roentgen Irradiation Disease. I. Protective Influence of Rutin in Irradiated Dogs. J. B. Field and P. E. Rekers.—p. 1.
*Evidence on Genesis of Certain Common Nasal Disorders. T. H. Holmes, H. Goodell, S. Wolf and H. G. Wolff.—p. 16.
Serial Determinations of Prothrombin Activity in Pregnancy and the Puerperium. E. Cotlove, D. Spiro and J. J. Vorzimer.—p. 28.
*Anomalous Right Pulmonary Vein Entering the Inferior Vena Cava: Two Cases Diagnosed During Life by Angiocardiography and Cardiac Catheterization. C. T. Dotter, N. M. Hardisty and I. Steinberg.—p. 31.
Clinical Evaluation of Direct Writing Electrocardiography. W. J. Hunzicker and H. D. Levine.—p. 37.
Coagulation Time of Blood in Silicone Tubes. H. Margulies and N. W. Barker.—p. 42.
Coagulation Time of Blood in Silicone Tubes in Patients Receiving Dicumarol. H. Margulies and N. W. Barker.—p. 52.
Hematologic and Electrophoretic Study on Blood Regeneration in Dogs Subjected to Repeated Phlebotomy. C. W. Mushett, K. G. Stern and R. H. Silber.—p. 58.
Direction of Precordial T Wave in 321 Normal Infants and Children. L. Kuskin and L. Brockman.—p. 65.
Naturally-Occurring Anticoagulants and Accelerator Substance in Human Blood. F. J. Schilling and A. DeNatale.—p. 70.
Continuous Peritoneal Irrigation in Treatment of Intractable Edema of Cardiac Origin. S. J. Schneierson.—p. 76.
*Studies of Sulfadiazine-Sulfamerazine Combination with Special Reference to Treatment of Pneumonia. P. D. Shore, H. F. Flippin and J. G. Reinhold.—p. 80.
Hypotension. S. A. Threefoot.—p. 86.
Narcolepsy: Brief Review and Report of Cases. F. R. Drake.—p. 101.

Common Nasal Disorders.—Holmes and co-workers report on 112 patients between the ages of 13 and 60 years, in whom life situations productive of conflict with anxiety, hostility, guilt and feelings of frustration and resentment were commonly

accompanied with nasal hyperfunction with hyperemia, swelling of the nasal mucosa, hypersecretion and obstruction to breathing in the nose. There was also observed an associated pyogenic-like reaction with an increase in the neutrophil and eosinophil content of nasal secretions. Biopsy obtained under these circumstances revealed edema of the stroma, dilated vascular and lymphatic channels and hypersecretion of the mucous glands. Cholinergic impulses to the nasal mucous membranes probably transmitted by the greater superficial petrosal nerve are responsible for the production of the nasal hyperfunction. The pattern appears to represent an attempt on the part of the organism to protect itself by shutting out, neutralizing and washing away an environment that is literally or symbolically noxious. A burning pain located in one or both nostrils and a dull aching pain deep under the bridge of the nose and often experienced over the zygoma, in the eye, temple, upper teeth and ear, commonly accompanied the nasal hyperfunction. When such a pattern is unduly sustained, pathologic changes occur which give rise to or prolong troublesome symptoms and, especially when coupled with other noxious threats and assaults, become important to the pathogenesis of chronic nasal disease.

Anomalous Right Pulmonary Vein.—Dotter and co-workers report 2 cases of anomalous right pulmonary vein entering the inferior vena cava, in a man aged 27 and in a man aged 41. Diagnosis was established in both patients during life by angiocardiography and cardiac catheterization. The clue to ultimate diagnosis was supplied by abnormal shadows of an apparently vascular nature seen in conventional roentgenograms. Partial emptying of pulmonary veins into the right side of the heart is compatible with adult life, as proved in the 2 cases reported. The functional changes consist of: (1) an increased right ventricular output (as compared to the left ventricular output and to a normal right ventricular output) with secondary right ventricular hypertrophy; (2) compensatory increase of pulmonary arterial flow to the unaffected areas of lung and apparent diminution of blood flow to the abnormally drained areas; (3) comparative functional inactivity of the area so drained. Surgical restoration of the normal anatomic relationship would appear to be a more difficult and drastic procedure than is warranted. Pneumonectomy would seem to be indicated only in the presence of right-sided heart failure. Conservative management will suffice in the absence of criteria for pneumonectomy.

Combined Sulfadiazine and Sulfamerazine Treatment in Pneumonia.—Shore and co-workers treated 169 patients having pneumonia with a mixture of equal parts of sulfadiazine and sulfamerazine, while 139 received sulfadiazine alone and 45 sulfamerazine alone. Twenty-eight patients were given the sulfonamide mixture but in addition were given 6 Gm. of sodium bicarbonate daily. Patients receiving sulfadiazine or sulfamerazine alone also received 6 Gm. of sodium bicarbonate. Except for the subgroup of 28 patients, none of those receiving the drug mixture received alkali adjuvants. An initial 3 Gm. of the sulfonamide medication by mouth was followed by a dose of 1 Gm. every six hours. The average total dose was about 32 Gm. The response of the patients receiving the sulfonamide mixture was superior to that observed when a single sulfonamide drug was administered. This was manifested by a more rapid initial fall in temperature following administration of the drug and by an earlier return to normal temperature. The average time required for treatment with the combined sulfadiazine-sulfamerazine preparation was 6 days, as compared with 6.3 days when sulfadiazine alone was used. Administration of the combined sulfonamide drugs gave an appreciably higher concentration in serum than did sulfadiazine alone. The use of the sulfonamide mixture without concomitant alkali therapy resulted in a decrease in the number of urine specimens containing crystals of the sulfonamide drugs approaching that observed when sulfadiazine was supplemented with sodium bicarbonate at the rate of 6 Gm. daily. These results support the view that the use of a combination of sulfonamide compounds offers advantages over the use of a single compound.

Anesthesiology, New York

10:369-516 (July) 1949. **Partial Index**

Mechanism of Cardiac Arrhythmias During Cyclopropane Anesthesia. J. W. Stutzman and F. L. Pettinga.—p. 374.
Mechanism of Hyperglycemia During Anesthesia: Experimental Study. S. R. Johnson.—p. 379.
Narcosis with Pentothal Sodium Alone Compared to Narcosis with Pentothal Sodium Combined with (1) Curare or (2) Myanesin. J. A. Paulson, J. S. Lundy and H. E. Essex.—p. 387.
Preanesthetic Hypnosis with Rectal Pentothal in Children. L. C. Mark, J. L. Fox and C. L. Burstein.—p. 401.
Effect of Intravenous Procaine on the Heart. J. H. Long, M. J. Oppenheimer, M. R. Wester and T. M. Durant.—p. 406.
Role of the Liver in Detoxication of Thiopental (Pentothal) by Man. F. E. Shideman, A. R. Kelly, L. E. Lee and others.—p. 421.
Experience with Tetra-Ethyl Ammonium Chloride (Etamon) in Peripheral Vascular Diseases and Allied Conditions in a Veterans Hospital. B. L. Steinberg.—p. 429.
Anesthetic Management of Patient with Thyroid Disease. L. H. Mousel and C. S. Coakley.—p. 444.
Caudal Anesthesia in Obstetrics: Combined Procaine-Pontocaine Single Injection Technic. O. B. Crawford and R. V. Chester.—p. 473.
*Detection of Explosive Mixtures or Static in Operating Rooms. J. W. Uhl, H. M. Livingstone and K. S. Ting.—p. 479.
Clinical Application of Desoxyephedrine Hydrochloride. M. F. Poe and M. Karp.—p. 484.
Hypobaric Saddle Anesthesia for Proctological Surgery. F. C. Dye and J. A. Vaughn Jr.—p. 489.
Nupercaine Spinal Anaesthesia for Upper Abdominal Surgery of Long Duration. O. Stechishin.—p. 494.

Detection of Explosive Mixtures or Static in Operating Rooms.—Uhl and his associates believe that there is a definite need for a practical instrument which may be incorporated on all gas machines to enable the anesthetist to measure accurately the concentration of the anesthetic agent and the explosibility of the mixture. The authors describe the Vapotester, which utilizes the principle of the Wheatstone bridge for the detection of combustible or explosive anesthetic mixtures. Knowledge of the presence of static electricity and its source is of great importance during the administration of combustible or explosive anesthetic mixtures. For this purpose the Statometer is used. The voltage of both of these instruments is low. As a safeguard against possible ignition, the switches of the Vapotester and the Statometer (both obtained from the Davis Emergency Equipment Co., Inc., Newark, N. J.) should be turned on before either instrument is taken into the room where tests are to be made.

Annals of Internal Medicine, Lancaster, Pa.

31:1-206 (July) 1949

Internist, Past, Present and Future. W. W. Palmer.—p. 1.
Hospital as Center of Preventive Medicine. S. Bayne-Jones.—p. 7.
The Allergy Factor in Disease. R. A. Cooke.—p. 17.
Research Problems in Coronary Heart Disease. P. D. White and C. Ferrero.—p. 33.
Present Status of Aureomycin Therapy. M. Finland, H. S. Collins, T. M. Gocke and E. B. Wells.—p. 39.
*Chloromycetin and Aureomycin: Therapeutic Results. T. E. Woodward.—p. 53.
Pancreatic Lithiasis and Gastritis (Cases with Gastroscopic Observations). M. M. Mourao and R. Schindler.—p. 83.
*Penicillin and Penicillin-Malaria in Treatment of Tabes Dorsalis. H. Packer and Y. T. Wong.—p. 96.
Secondary Amyloidosis. D. C. Dahlin.—p. 105.
Significance of Normal Electrocardiogram in Old Age. T. T. Fox.—p. 120.
Newer Concepts of Medical Care. R. P. McCombs.—p. 125.

Chloramphenicol and Aureomycin.—Woodward reports investigations on the therapeutic effects of chloramphenicol (chloromycetin®) and aureomycin with a review of literature. Incontrovertible evidence is now available which places the two new streptomyces-derived antibiotics, chloramphenicol and aureomycin, on a level of therapeutic effectiveness comparable with that of penicillin. Both these antibiotics have been shown to be therapeutically effective after oral administration. Except for moderate gastrointestinal irritation resulting from aureomycin, significant toxic effects have not been observed. Chloramphenicol and aureomycin have further extended the range of specific therapy to include the rickettsial and certain virus-like agents. The results obtained in the treatment of patients with Rocky Mountain spotted fever, scrub typhus and murine typhus are highly specific and similar. Chloramphenicol has been found effective in epidemic typhus, and aureomycin has proved of great benefit to patients with Q fever. Aureomycin has enjoyed more extensive clinical use in the psittacosis-lymphogranuloma venereum group of diseases. It has demonstrated benefit in

patients with lymphogranuloma venereum and in human ornithosis. Chloramphenicol treatment of 1 patient with lymphogranuloma venereum produced similar favorable results. Primary atypical pneumonia, a disease of suspected virus causation, responds favorably to aureomycin. One patient treated with chloramphenicol responded similarly. Important diseases of the gram-negative group have been therapeutically controlled. Chloramphenicol is unequivocally the drug of choice in typhoid. Both antibiotics appear equally effective against brucellosis. Patients with tularemia have responded to aureomycin in a manner comparable to streptomycin. Experimental results in mice infected with Pasteurella tularense show chloramphenicol to be less effective.

Penicillin and Penicillin-Malaria in Tabes Dorsalis.—Thirty patients with tabes dorsalis are included in a study by Packer and Wong. Fifteen patients received penicillin alone, in the form of the sodium salt in doses of 30,000 units every three hours day and night. Fifteen other patients received a combination of penicillin plus malaria therapy, in such a manner that penicillin was given throughout the febrile course. The average number of hours of fever above 103 F. (rectal) was forty-seven. The amount of penicillin given to the group receiving penicillin alone averaged 6.2 million units for each patient; in the penicillin-malaria group 5.25 million units. The average duration of symptoms was longer for the penicillin-malaria group than for the penicillin group, 8 patients in the former group having had symptoms for four years or more, whereas none in the penicillin group had symptoms exceeding four years in duration. Amelioration of symptoms was observed following penicillin-malaria therapy even in patients with symptoms for five years or more. Approximately two thirds of the patients in each group showed positive reactions to tests of the cerebrospinal fluid for syphilis before treatment. The effect on spinal fluid and improvable clinical manifestations in both groups failed to demonstrate any decided superiority of penicillin-malaria therapy over penicillin alone for the period of observation. For rapidly progressive optic atrophy and for severe gastric crises, combined penicillin-malaria treatment probably is best, but for the other clinical manifestations of tabes dorsalis penicillin alone appears to offer results approaching those achieved by penicillin-malaria therapy. Use of penicilli· alone is justified as preliminary therapy.

Archives of Dermatology and Syphilology, Chicago

60:1-134 (July) 1949

*Podophyllotoxin. M. Sullivan.—p. 1.
Clinical Appraisal of Cold Wave Process. M. H. Cohen.—p. 14.
Founding and First Meeting of American Dermatological Association: A Milestone in Progress of American Dermatology. P. E. Bechet.—p. 24.
Diagnosis and Treatment of Pigmented Nevi: Consideration of Some of the Pitfalls. S. W. Becker.—p. 44.
Porphyria with Cutaneous Manifestations. L. A. Brunsting and H. L. Mason.—p. 66.
*Ehlers-Danlos Syndrome: Clinical and Genetic Study. S. A. M. Johnson and H. F. Falls.—p. 82.
Evaluation of Bacitracin in Local Treatment of Pyogenic Infections. J. L. Miller, M. H. Slatkin and B. A. Johnson.—p. 106.

Podophyllotoxin.—The ability of the resin or extract of the plant Podophyllum peltatum to cure condylomata acuminata, its cancerocidal potentialities and its usefulness as a tool for cytologic research make it a drug of considerable interest. Inasmuch as resin of podophyllum is a complex mixture containing many ingredients, it is important to determine the substance or substances which are responsible for its biologic activity. The identified components are: podophyllotoxin (with its two products of alkaline hydrolysis, podophyllic acid and picropodophyllin), podophylloresin, quercetin and alpha-peltatum. Condylomata acuminata were treated with all the presently available components of the resin. Podophyllotoxin was the only component capable of curing the genital warts. Resin of podophyllum topically applied to skin and benign epithelial tumors produces severe cytotoxic effects and interference with mitosis, resulting in distorted mitotic patterns. Of the presently available components of the resin, podophyllotoxin is apparently the one principally responsible for the production of the abnormal cellular alterations.

Ehlers-Danlos Syndrome.—Johnson and Falls point out that the Ehlers-Danlos syndrome is characterized by (1) hyperlaxity and hyperextensibility of the joints, (2) hyperelasticity and hyperlaxity of the skin and (3) friability and fragility of the skin and blood vessels, with breaking, splitting and formation of hematomas and pseudotumors subsequent to the slightest trauma. The severity of these characteristics may vary among different persons and in sibships. In some families in which one or more members have all the characteristics of the Ehlers-Danlos syndrome other members may have one or two of the characteristics. The authors review the literature and report two studies of cases, with a family pedigree of 123 persons, of whom 21 men and 11 women had the syndrome. Pedigrees listed by other authors are also cited, and the variations in the severity of the manifestations of the syndrome between siblings are pointed out. Photographs illustrate the clinical manifestations of the condition, as well as the histologic and roentgenologic observations. The pedigree of the reported kindred suggests a definite dominant inheritance pattern of transmission of the anomaly. In the thoroughly studied sibships there was revealed a higher ratio of affected persons than the expected 1:1 ratio of affected to normal siblings. Two severely affected daughters in a family resulting from the mating of mildly affected cousins suggests that these girls could represent the homozygous state of the syndrome. A plea is made that all physicians, particularly orthopedic surgeons, who often see the articular manifestations of the condition, note the other characteristics of the syndrome.

Archives of Ophthalmology, Chicago

40:579-720 (Dec.) 1948

Localizing Value of Visual Fields in Patients with Early Chiasmal Lesions. F. H. Adler, G. Austin and F. C. Grant.—p. 579.
The Cornea: I. Swelling Properties of Fibrous Tunic of the Eye. W. M. Hart and B. F. Chandler.—p. 601.
Id.: II. Factors Affecting Transmission of Visible Light by Fibrous Tunic of the Eye. W. M. Hart and B. F. Chandler.—p. 612.
Hypercalcemia and Bank Keratopathy: Report of 19 Cases. D. G. Cogan, F. Albright and F. C. Bartter.—p. 624.
Dermoid and Epidermoid Tumors of the Orbit. R. L. Pfeiffer and R. J. Nicholl.—p. 639.
Simple Operation for Entropion. J. B. V. Butler.—p. 665.
Practical Application of Surface-Active Drugs in Ophthalmology. J. B. Feldman, P. DeLong and C. P. Brown.—p. 668.
Operation for Congenital Cataract. O. Barkan.—p. 680.
Choroidoretinal Degeneration: Sex-Linked Form in Which Heterozygous Women Exhibit Tapetal-Like Retinal Reflex. H. F. Falls and C. W. Cotterman.—p. 685.
Method for Preservation of Animal Eyes. P. M. Runge.—p. 704.

Connecticut State Medical Journal, Hartford

13:617-706 (July) 1949

Cancer From Family Doctor's Viewpoint. M. T. Root.—p. 619.
Recent Advances in Chemical Control of Insects: Brief Review. L. Goldman.—p. 624.
Abdominal Pregnancy: Case Report. R. A. Gandy and R. A. Colmers.—p. 630.
Bronchial Asthma. S. W. Jennes.—p. 632.
Degenerative Diseases: Backward and Forward Look. T. R. Harrison.—p. 638.
*Massive Nonfilarial Genital Elephantiasis: Report of Unusual Case. M. S. Hovenanian.—p. 642.
Program of Action to Meet National Health Needs. J. R. Miller.—p. 645.
Place of Yale Medical School in Connecticut Medicine. G. B. Darling.—p. 649.

Nonfilarial Genital Elephantiasis.—Hovenanian presents the history of a man, aged 74, who consulted him in September 1947 because of an enormously enlarged penis and scrotum. He dated the onset of scrotal swelling to February 1943, shortly after an attack of virus pneumonia. In 1944 after an episode of epididymitis and cellulitis of the scrotum there was a rapidly progressing enlargement. At the time of hospitalization in 1947, the scrotum hung to the knees. Previous health had been good, except that in 1935 the patient had undergone a perineal prostatectomy with an excellent functional result. The glandular tissue indicated benign hyperplasia. The author performed a plastic operation on the penis and the scrotum. The gross operative specimen consisted of a scrotum with the testes, epididymides and foreskin. The skin was indurated and thickened, and the subcutaneous tissue was edematous. Microscopic examination revealed no evidence of malignant growth or parasitic

infection. After the operation the patient was able again to wear normal clothing. He lost about 45 pounds (20.4 Kg.). He was able to return to work. The author says that the round cell infiltration and the edema indicated the presence of an inflammatory etiologic agent and an obstructive factor. The patient's history was significant, in that scrotal swelling increased after an attack of scrotal cellulitis and epididymitis. A combination of fibrosis and scarring from previous perineal surgical measures may have been the obstructive factor.

Journal of Aviation Medicine, St. Paul

20:147-208 (June) 1949

Physiological Effects Resulting from Added Resistance to Respiration. C. C. Cain and A. B. Otis.—p. 149.
Toxicity of Anti-Malarial Drugs on Flying Personnel. H. I. Chinn, C. J. Ferber and D. D. Flickinger.—p. 161.
Hearing Standards in Airline Transport Pilots. W. J. Pothoven and A. Schuringa.—p. 171.
Physiological Effects of Brief Periods of Exposure to Low Temperatures. M. R. Miller and A. J. Miller.—p. 179.
Recovery Rate from Some of Effects of Daily Exposures to High Altitude in Rats. P. D. Altland.—p. 186.
Analysis of Causes of Disqualification of 164,687 Applicants Rejected for Aviation Training. R. E. Lyons.—p. 193.
Study of Certain Blood Properties in Healthy Men Transferred from Subtropic to Subarctic Environment. A. J. Miller.—p. 201.

Journal of Lab. and Clinical Medicine, St. Louis

34:883-1028 (July) 1949

Hematologic Changes Induced in Guinea Pigs by Prolonged Administration of Pteroyl Glutamic Acid Antagonists. J. Innes, E. M. Innes and C. V. Moore.—p. 883.
Effects of Nitrogen Mustard on Induced Erythroblastic Hyperplasia in Rabbits. L. O. Jacobson, E. K. Marks, E. Gaston and M. H. Block. —p. 902.
Dietary and Hormonal Influences in Experimental Uremia. G. Masson, A. C. Corcoran and I. H. Page.—p. 925.
Effect of an Acid and Alkaline Salt on Urinary Excretion of Iron. A. P. Barer and W. M. Fowler.—p. 932.
Consideration of Factors in Urine Which Cause Precipitation of Hemoglobin in Vitro. M. J. Melohn, J. Huston, E. Huston and others. —p. 936.
Use of Hypertonic Solutions for Enteric Perfusion. F. A. de Peyster and F. H. Straus.—p. 944.
Progressive Changes in Liver Composition, Function, Body Fluids and Liver Cytology During Protein Depletion in Rat and Effect of Choline upon These Changes. Cheng-Fa Wang, D. M. Hegsted, A. Lapi and others.—p. 953.
Bromsulfalein Clearance. G. D. Lavers, W. H. Cole, R. W. Keeton and others.—p. 965.
Concentration of Component A in Blood, Its Assay and Relation to Labile Factor. A. J. Quick and M. Stefanini.—p. 973.
Intensive Immunization of Already Sensitized Rh-Negative Woman; Birth of Mildly Diseased Baby. E. N. East and C. M. Mair.—p. 983.
Re-Evaluation of Papaverine in Treatment of Angina Pectoris. A. J. Simon, M. Dolgin, A. J. L. Solway and others.—p. 992.
*Semiweekly Treatment of Syphilis with Procaine Penicillin in Oil: Reactions and Preliminary Results in 228 Patients. V. Scott.—p. 998.
Histamine Antagonists: XIV. Experimental and Clinical Study of N,N-Dimethyl-N'-2-Thiazolyl-N'-p-Methoxybenzyl-Ethylenediamine Hydrochloride (194-B). T. B. Bernstein and S. M. Feinberg.—p. 1007.
Appraisal of Anticholinergic Activity by Prevention of Methacholine-Induced Fatal Bronchospasm in Guinea Pigs. G. Chen and C. R. Ensor.—p. 1010.
Further Studies on Enhancement of Heterophile Agglutination Titers by Means of Serum Diluent. A. Milzer and S. Nathan.—p. 1014.

Semiweekly Treatment of Syphilis with Procaine Penicillin in Oil.—Scott attempted to determine the therapeutic efficacy of procaine penicillin in oil administered semiweekly in the treatment of syphilis, and to determine the practicability of a semiweekly schedule in the treatment of ambulant patients from the standpoint of case holding. The preliminary results are based on the treatment of 228 patients with all stages of syphilis. Two arbitrary schedules of therapy have been used, 600,000 units being injected intramuscularly semiweekly for seven and one-half weeks, or alternatively for ten weeks, the patient receiving either fifteen or twenty injections. One instance of suspected (but not proved) intolerance to procaine was observed. No evidence of chronic procaine toxicity developed. Cutaneous reactions of the type attributed to penicillin occurred in 5 patients (less than 2.5 per cent). No serious reactions of the Jarisch-Herxheimer type occurred. Sixteen of the 228 patients failed to complete the treatment. Thus from the standpoint of case holding, the treatment was 93 per cent satisfactory. In chronic infection such as syphilis, little information on the therapeutic effectiveness of an agent can be gained from a small series of patients with diverse stages of disease observed for only brief periods of time. However, on the basis of preliminary evidence this type of repository penicillin seems well suited for the ambulant treatment of syphilis.

Journal of the Mount Sinai Hospital, New York

16:1-70 (May-June) 1949

Nutrition and Bone Disease. R. H. Follis Jr.—p. 1.
Torula Meningo-Encephalitis. J. H. Globus, K. M. Gang and P. S. Bergman.—p. 14.
Prolonged Moderate Dose Therapy Versus Intensive Short Term Therapy with Penicillin and Caronamide in Subacute Bacterial Endocarditis. F. H. King, S. S. Schneierson, M. L. Sussman and others.—p. 35.
Morphologic Effects of Stilbamidine: Report of Autopsies in 3 Stilbamidine-Treated Cases. M. Kannerstein.—p. 47.
Insulin Resistance: Case Report. K. E. Osserman and H. Pollack. —p. 54.

Journal of Pediatrics, St. Louis

35:1-134 (July) 1949

Celiac Syndrome: Factors Influencing Its Development with Particular Reference to Hypothyroidism as Contributing Cause. J. A. Johnston and P. J. Roward.—p. 1.
Relation of Illness Patterns in Children to Ordinal Position in Family. A. Kingsley and E. L. Reynolds.—p. 17.
Sustained Summer Heat and Fever in Infants. H. M. Cardullo.—p. 24.
Illnesses Within First Year of Life. M. A. Norval and R. L. J. Kennedy.—p. 43.
Treatment of Pertussis with Polymyxin B (Aerosporin). S. Kaplan, A. E. Fischer and J. L. Kohn.—p. 49.
*Treatment of Anginose Type of Infectious Mononucleosis with Gamma Globuiin. A. G. Bower, J. E. Affeldt and H. West.—p. 58.
Tracheal Tumors in Infants and Children. J. G. Gilbert, B. Kaufman and L. A. Mazzarella.—p. 63.
Hospital Progress of 992 Premature Infants Fed Evaporated Milk-Carbohydrate Mixtures. S. Gruber, A. Litvak, H. Rascoff and R. Norton.—p. 70.
Major Pelvic Pathology in Children. D. W. Goldman and P. K. Hughes. —p. 77.

Gamma Globulin in Infectious Mononucleosis.—Bower and co-workers employed intramuscular injections of 4 to 8 cc. of gamma globulin in severe cases of infectious mononucleosis of the anginose type. All of the 14 patients treated had a heterophile agglutination of 1:56 or higher, and all received gamma globulin and penicillin. The response to gamma globulin was definitely superior to that obtained with penicillin. Under the influence of gamma globulin 93 per cent of the patients were improved within seventy-two hours, whereas only 50 per cent were improved within this period under the influence of penicillin. Response to gamma globulin was manifested by drop in temperature, disappearance or shrinking of the membrane or exudate and particularly by general clinical improvement. The authors believe that gamma globulin should be tried in other forms of severe infectious mononucleosis, such as those with jaundice. It may also speed milder cases to recovery.

Kansas Medical Society Journal, Topeka

50:265-324 (June) 1949

*Eczema of the Hands. P. A. O'Leary.—p. 265.
Office Diagnosis and Treatment of Diabetes Mellitus. G. R. Shepherd. —p. 269.
Anococcygeal Teratoma in the Newborn: Report of Case. J. S. Hibbard and G. J. Goodman.—p. 276.
Richter's Type Hernia of Transverse Colon: Case Report. M. V. Laing and C. D. Blake.—p. 278.

Eczema of the Hands.—According to O'Leary eczema of the hands may be self limited, as in occupational eczema of the hands, where the skin becomes "hardened," or it may be a permanent state in which remissions and exacerbations alternate. A familial history of eczema or a history of infantile eczema is significant, because it indicates an "eczematoid diathesis." Eczema or dermatitis of the hands consists of a vesicular or scaling, oozing or weeping, crusted or infected eruption of the hands. In the acute phase it is characterized primarily by vesicles and erythema; when subacute, by scaling and erythema, and in the chronic phase, by thickening or lichenification and scaling. Eczema due to a known factor might well be the same as that in which the cause is unknown. The author discusses fungous infections and id reactions, occupational irritants, infectious eczema, dietary factors, neurodermatitis, dyshidrosis (pompholyx), drug eruptions and eczemas of unknown cause. The presence of an acute vesicular eruption indicates that the skin is hypersensitized and is prone to react unfavorably to therapeutic agents that are not mild and soothing. Applications containing grease do not absorb the serum exuding from the

ruptured vesicles and therefore are usually uncomfortable. Applications should be of a type that are not messy, do not stain and are easily removed. When an extensive vesicular eruption involves the greater part of both hands, wet dressings kept on continuously often will prove best. The use of 0.5 per cent solution of aluminum subacetate, or boric acid in 1 or 2 per cent solution, applied in a large "boxing glove" type of fluffy dressing usually is soothing. The gauze adjacent to the skin must be kept wet, which may necessitate its frequent immersion in the solution. When evidence of secondary infection is present, bacitracin in strengths of 500 to 1,000 units per cubic centimeter has been a good wet dressing. During the subacute phase a soothing lotion or a mild ointment may be employed. In the chronic states stimulating ointments should be used, such as 1 per cent coal tar or salicylic acid. An eczematous hand is a sensitized hand and reacts unfavorably to many applications shortly after the onset. It may be better to use applications in weaker rather than in stronger dilutions. Overtreatment reactions, as the result of using remedies too strong, is a common dermatologic problem.

Laryngoscope, St. Louis

59:693-828 (July) 1949

Hematology. J. J. Shea and J. J. Shea Jr.—p. 693.
Psychosomatic Aspects of Diseases of Ear, Nose and Throat. L. D. Coleman.—p. 709.
Use of Sodium Pentothal Anesthesia in Adult Tonsillectomies. I. H. Blaisdell.—p. 721.
Problems of Tonsillectomy and Tracheotomy in Relation to Poliomyelitis. C. Wesselhoeft.—p. 726.
Cancer of the Face; Treatment and Plastic Repair. G. B. New.—p. 731.
Epistaxis. J. H. Ogura and B. H. Senturia.—p. 743.
The Human Ear as Analyzer of Sound. J. A. Sullivan, C. C. Gotlieb and W. E. Hodges.—p. 764.
Dysphagia and Extraesophageal Pathology: Clinical Review of Some of the Important Surgical Lesions from Endoscopic Viewpoint. V. K. Hart.—p. 771.
Continuous Pharyngeal Suction During Tonsillectomy Under Local Anesthesia. L. W. Ruddy.—p. 790.
*Relationship of Swimming and Diving to Sinusitis and Hearing Loss. W. J. Hitschler.—p. 799.

Relationship of Swimming and Diving to Sinusitis.—Hitschler says that an attempt was made to determine the relationship of swimming and diving to sinusitis and hearing loss. A survey was conducted among some 900 college graduates, roughly half of whom were trained swimmers. Other information was obtained from coaches, school and college personnel, otolaryngologists and pediatricians. The incidence of sinusitis and hearing loss among healthy adult trained swimmers was no greater than among unselected college graduates. There was less severe upper respiratory infection among the swimmers and divers than among the controls. In the experimental group the figures suggested that lesions contracted from swimming and diving were more apt to be severe than those contracted from other causes. Coaches and other swimming experts saw little infection; school and college physicians and boarding school personnel saw more; otolaryngologists still more, and pediatricians, most. Salt water swimming was considered safer than fresh water swimming. Lack of proper training and supervision, immaturity, the presence of already existing upper respiratory infection and contaminated water are important factors in the development of sinusitis and hearing loss.

Minnesota Medicine, St. Paul

32:673-776 (July) 1949

Therapeutic Problems Encountered in Acute Poliomyelitis. R. B. Lawson.—p. 693.
Recurrence Following Inguinal and Femoral Hernia Operations: Three to Seven and One-Half Years Follow-Up. D. J. Ferguson.—p. 697.
Diagnosis and Treatment of Common Forms of Respiratory Allergy. F. W. Wittich.—p. 702.
Symptoms of Cholecystitis. N. A. Womack.—p. 709.
*Periarteritis Nodosa (Essential Polyarteritis): Clinical Data on 30 Cases Proved at Necropsy. L. E. Wold and N. W. Barker.—p. 715.
Invasion of Blood Vessels by Soft Tissue Fibrosarcoma: Report of 3 Cases. H. W. Meyerding and A. R. Pils.—p. 720.
Relation of Pathologist to General Practitioner. L. W. Larson.—p. 725.
Radiographic Evidence of Intermittent Protrusion of Intervertebral Disk: Case Report. C. C. Chatterton and L. A. Nash.—p. 730.

Periarteritis Nodosa.—Wold and Barker analyze data on 30 patients who were studied during life at the Mayo Clinic and who subsequently died, and in whom the diagnosis of periarteritis nodosa was made or confirmed at necropsy. A history or evidence of allergic reactions or drug sensitivity was infrequent. The symptoms and clinical observations were variable and involved different organ systems in various combinations. The gastrointestinal organs, kidneys and peripheral nerves were most frequently affected clinically. The sedimentation rate of the erythrocytes was significantly increased in all 13 cases in which it was determined. A clinical diagnosis of periarteritis nodosa was made in 11 of the 30 cases. In 7 others the diagnosis was malignant hypertension or chronic glomerulonephritis. This suggests that periarteritis nodosa may produce a clinical picture similar to that seen in the terminal stages of malignant hypertension and chronic glomerulonephritis. It is known that a widespread necrotizing panarteritis may occur in the terminal stages of malignant hypertension and glomerulonephritis, but the arterial lesions are not considered to be identical with those of periarteritis nodosa. The information obtained from biopsy in the 11 cases in which a specimen obtained was for the most part disappointing and in several instances confusing. A positive biopsy is generally regarded as the best diagnostic evidence, but a negative result does not exclude the diagnosis. Also in periarteritis nodosa a biopsy of muscle tissue may occasionally show dermatomyositis, which in some instances may be a closely related disease.

Plastic and Reconstructive Surgery, Baltimore

4:225-310 (May) 1949

Studies on Pathologic Anatomy of Unilateral Hare-Lip Nose. W. C. Huffman and D. M. Lierle.—p. 225.
Fracture of Zygomatic Tripod: Easily Reduced by Intranasal Manipulation. E. P. Cardwell.—p. 235.
Composite Bone Graft in Saddle Nose. R. C. Seeley.—p. 252.
Fat Substitutes in Cheek Deformities. I. L. R. Rubin.—p. 269.
Fat Substitutes in Cheek Deformities. II. D. Teplitsky and L. R. Rubin.—p. 274.
Hemihypertrophy of Face: Case Report. L. E. Sutton.—p. 276.
Mortised Mandibular Bone Graft Following Giant Cell Tumor Removal: Twenty-Five Year History. C. L. Straith.—p. 282.
Closure of Scalp by Split Thickness Skin Grafts. A. Blanchart.—p. 289.
Moulded Acrylic Splint for Palm and Finger Grafts. H. S. Patton and J. C. Strain.—p. 292.
Labial Transplant for Correction of Loss of Nipple. W. M. Adams.—p. 295.
Scalpel for Paring Margins of Cleft Palate. G. K. Lewis.—p. 299.

Southern Medical Journal, Birmingham, Ala.

42:455-544 (June) 1949

Further Experiences with Use of Tantalum Mesh in Repair of Large Ventral Hernias. A. R. Koontz.—p. 455.
*Clinical Importance of Duodenal Diverticula. E. M. Dunstan, M. I. Lowance and E. C. Jones.—p. 460.
Roentgen and Clinical Study of Nasopharyngeal Malignancies (Lymph-Epithelioma and Transitional Cell Carcinoma). G. J. Baylin, R. J. Reeves and H. D. Kerman.—p. 467.
Intranasal Dacryocystotomy. W. L. Bonham.—p. 477.
Role of Obstructive Enterostomy in Treatment of Obstruction of Small Intestine. H. A. Gamble.—p. 480.
The Doctor's Heart. L. H. McDaniel.—p. 487.
Use of Aerosol "Benadryl" in Bronchial Asthma. L. L. Friedman.—p. 491.
Industrial Pneumonitis. T. H. DeLaureal.—p. 492.
Dermatologic Problems in Allergic Child. R. Bowen and M. G. Bloom.—p. 494.
Recent Advances in Gastro-Enterology. W. R. Johnson.—p. 501.
*Oral Aluminum Penicillin: Clinical Study. M. Friedman and L. L. Terry.—p. 507.
Surgery of Chylous System. J. D. Hancock.—p. 515.
Anesthesia for Cesarean Section. P. M. Wood.—p. 520.
Copper Sulphate Method for Measuring Specific Gravitis of Whole Blood and Plasma: Comparative Study for Estimation of Hemoglobin. B. R. Powers, P. C. Thomas, Z. E. Albert and others.—p. 525.
Note on Oral Versus Parenteral Administration of Vitamin B_{12}. T. D. Spies, G. Garcia Lopez, F. Milanes and others.—p. 528.
Continuation in Medical Education and Some of Its Implications. J. W. Mountin.—p. 531.

Duodenal Diverticula.—The discovery of a case of duodenal diverticulosis with associated leiomyosarcoma prompted Dunstan and associates to review 32 other cases of duodenal diverticulosis observed by them, some of which have been followed over many years. The diverticulum was considered nonproductive of symptoms in 14 cases. The 4 cases which were successfully treated by surgical excision are described in detail. In one of these, the removal of a large diverticulum resulted in cure; in another removal was again followed by an apparent cure, but the time that has elapsed is too short to forecast the eventual outcome for the sarcoma found in the diverticulum. The third patient had had hemorrhage from a leiomyoma of the diver-

ticulum. The fourth had had hemorrhage from an ulcer in a diverticulum. Data on the 14 cases treated medically are reported. The authors stress among other factors failure of satisfactory visualization on barium study; difficulty of evaluating symptoms; generally poor response to medical care and variance in opinion of different authors regarding pathology and care of duodenal diverticula. The fact that in their group of cases some of the most serious complications were present in undiagnosed diverticula, or were nonapparent preoperatively in diagnosed ones, suggested to the authors that this lesion should be treated with more consideration.

Oral Aluminum Penicillin.—Friedman and Terry report a series of clinical trials with a tablet containing 50,000 units of aluminum penicillin and 0.3 Gm. of sodium benzoate. The aluminum salt is considered less soluble and hence less susceptible to destruction by stomach acid. The small amount of sodium benzoate present is considered to result in insignificant renal blockage but is believed to be useful in inhibiting the penicillin-destroying enzymes. During the past year all patients requiring penicillin on the medical service of the U. S. Marine Hospital, Baltimore, with rare exceptions have received this oral preparation. The dosage schedule has been two tablets (total 100,000 units) every four hours, day and night. Seventy-three patients with pneumonia were treated with this regimen. In 65 of these patients prompt cure was obtained; in 2 cases oral medication had to be discontinued; in 1 case a complicating empyema developed; in another patient there developed pulmonary abscess, which responded to aerosol penicillin, parenteral penicillin and sulfadiazine; 1 patient suffered a relapse which was successfully treated with oral penicillin; 2 patients failed to respond, and 1 died suddenly. This death was not explained. After one year's use of oral aluminum penicillin, the authors have gained the impression that this preparation is as effective as parenterally given aqueous penicillin preparations when used in about twice the dosage of the latter. A small percentage of reactions occurs. Some reactions are due to the penicillin and would undoubtedly occur with equal frequency whether the preparation was given orally or parenterally. A small number of patients will experience mild to moderate diarrhea, distention and nausea. This may be inherent in the preparation itself and possibly may be due to the aluminum salt. No reaction peculiar to the oral preparation was noted which was sufficiently severe to require discontinuation of the drug prior to adequate treatment of the original condition. Since this report has been prepared the same treatment regimen has been successful in 26 additional cases of pneumonia.

Surgery, St. Louis

25:815-978 (June) 1949

Radical Pancreaticoduodenectomy: Report of 2 Cases of Proved Successful Implantation of Pancreatic Duct into Jejunum. J. T. Reynolds and H. E. Pearse.—p. 815.

*Total Pancreatectomy with Report of Postoperative Physiologic Studies. J. Greenfield and J. H. Sanders.—p. 824.

Partial Esophagectomy with End-To-End Anastomosis in Posterior Mediastinum: Experimental Study. O. Swenson and H. W. Clatworthy.—p. 839.

*Carcinoma of Cervical Esophagus with One-Stage Total Esophageal Resection and Pharyngogastrostomy. L. M. Shefts and A. Fischer.—p. 849.

Intrathoracic Gastroenteric Cysts. H. Linder.—p. 862.

Fate of Cardiac Foreign Bodies. J. M. Fritz, M. M. Newman, R. W. Jampolis and W. E. Adams.—p. 869.

Anatomic Observations on Lumbar Sympathetic Nervous System. R. A. Cowley and G. H. Yeager.—p. 880.

New Method of Preventing Fatal Embolus: Preliminary Report. H. H. McCarthy, L. D. McGuire, A. C. Johnson and J. W. Gatewood.—p. 891.

Clinical Study of Use of Synthetic Detergent (pHisoderm) Combined with Hexachlorophene for Disinfection of Skin. B. S. Freeman and T. K. Young Jr.—p. 897.

Full-Thickness Skin Grafts in Hernial Repair. L. W. Greene Jr. and G. F. Wollgast.—p. 902.

Gynecomastia in Cirrhosis of Liver. J. Mithoefer and W. B. Bean.—p. 911.

Congenital Absence of Gall Bladder. W. Nelson, F. F. Hatch and H. M. Jackson.—p. 916.

Intestinal Obstruction Caused by Gallstone. C. W. Mayo and P. W. Brown.—p. 924.

Studies on Burns: IV. Further Observations on Vasoconstrictor Substance in Lymph from Burned Area. E. M. Alrich.—p. 931.

Total Pancreatectomy.—Greenfield and Sanders point out that until recently total pancreatectomy was regarded as incompatible with life. The operation has been performed in only 17 cases, to which the author adds a case in which a total pancreatectomy was done for primary cancer. Physiologic studies were carried out over a period of six months. The greatest fluctuations of blood sugar occurred during the first five postoperative days. A daily dose of 40 units of protamine zinc insulin was sufficient to sustain the carbohydrate metabolism and to prevent ketosis. The appetite improved as the serum bilirubin fell, and the results of hepatic function tests returned to normal. It was then possible to increase the caloric intake to the optimum calculated diet. The use of fairly large amounts of pancreatic extract is of real value in increasing the assimilation of the ingested food. Sixteen grams of pancreatin in tablet form was adequate to diminish the fat and protein loss in the stools by approximately 10 per cent. The administration of pancreatin, unlike that of insulin, may become optional if the fat and protein intake can be sufficiently increased to compensate for the caloric loss in the stools. The management of the depancreatized patient is not as formidable as one might imagine. Repeated stool analyses and liver function tests are superfluous as long as the weight and appetite remain good.

One Stage Total Resection in Carcinoma of Cervical Esophagus.—Shefts and Fischer report a case treated by a one stage total esophagectomy and pharyngogastrostomy. Although the patient's symptoms were present for two years, the lesion had probably existed longer. The carcinoma was limited to the esophagus, there being no evidence of involvement of lymph nodes. The mildness and obscurity of symptoms and the reluctance of physicians to esophagoscope all patients with dysphagia account for the fact that many diagnoses are made late. The lesion is almost always greater than is expected on the basis of the roentgenographic studies and usually more extensive than noted by esophagoscopic examination. It is important that cervical resection be done first. Should nodal involvement be found, the operation would then be staged so that the first stage would be a radical nodal resection as done by Bricker and co-workers. The dissection of nodes in the superior mediastinum would then be part of the later total removal of the esophagus. The authors found the thoracic approach satisfactory. For dissecting above the aortic arch and through a transthoracic posterolateral approach, the technical considerations as discussed by DeBakey and Ochsner should be studied. The stomach can be brought to the inferior portion of the hypopharynx and anastomosed. It was observed that during the anastomosis in the cervical region when the stomach was pulled up to the level of the cricoid cartilage the arteries were still pulsating well, but the veins appeared distended and bluish. This improved by the time the anastomosis was complete. It is believed that this partial venous obstruction was due to pressure by the mass which resulted from turning the last inch of the esophagus into the stomach and which was at the level of the opening in the mediastinal pleura above the aortic arch. Therefore, in repeating this operation, the esophagus should be removed entirely from the stomach, for this will probably remove any pressure by a thickened portion of the stomach as it passes through into the neck.

Tennessee State Medical Assn. Journal, Nashville

42:223-268 (July) 1949

When Does the General Practitioner Need the Surgeon? R. L. Sanders.—p. 223.

Neurological and Psychiatric Aspects of Problem of Headache. W. F. Orr Jr.—p. 229.

Headache. H. C. Smith.—p. 232.

Otolaryngological Aspects of Problem of Headache. G. M. Maness.—p. 235.

Headache in Medical Diseases. R. H. Kampmeier.—p. 237.

Yale Journal of Biology and Medicine, New Haven

21:451-508 (July) 1949

Journey of Lepers on Okinawa. R. B. Livingston.—p. 449.

Electrostatic Fields of Sciatic Nerve in Frog. H. S. Burr and A. Mauro.—p. 455.

Studies on Origin and Development of Normal Hemagglutinins. B. B. Kershaw.—p. 463.

Erythema Multiforme Exudativum: Report of Case with False-Positive Serology. R. H. Saunders Jr.—p. 481.

Dermal Spreading of India Ink With and Without Hyaluronidase as Influenced by Hormones from Adrenal Cortex. J. C. Opsahl.—p. 487.

Extractable Histamine Content of Gastric Mucosa and Lung Before and After Parenteral Histamine Administration. L. E. Young.—p. 499.

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An asterisk (*) before a title indicates that the article is abstracted. Single case reports and trials of new drugs are usually omitted.

British Journal of Plastic Surgery, Edinburgh

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Infant Plastic Surgery and Mother Nursing. C. Pickerill.—p. 116.
Rhinoplastic Flap Design in Narrow Forehead. J. Penn.—p. 132.
Fractures of Malar: Method for Maintaining Position in Cases in Which Reduction is Delayed. S. D. Gordon.—p. 134.
New Type of Knife for Cutting Skin Grafts, Using Replaceable Blades. D. C. Bodenham.—p. 136.
Plaster of Paris Head Cages in Fixation of Free Skin Grafts to Head and Face. C. R. McCash.—p. 138.

British Medical Journal, London

2:113-190 (July 16) 1949

*Association of Certain Ovarian Cells with Endometrial Cancer. W. Shaw and B. Dastur.—p. 113.
*Infantile Diarrhoea and Vomiting: Clinical and Bacteriological Investigation. J. Taylor, B. W. Powell and J. Wright.—p. 117.
What is Social Medicine? W. Hobson.—p. 125.
The Age of the Menarche. D. C. Wilson and I. Sutherland.—p. 130.
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Experience with a Syringe Unit. A. G. Rickards.—p. 135.
Amoebiasis in England as Household Disease. A. R. D. Adams and D. R. Seaton.—p. 136.

Association of Ovarian Cells with Endometrial Cancer.—Shaw and Dastur describe unusual cells which they found in the mesovarium and ovarian medulla of patients with adenocarcinoma of the endometrium and with endocervical carcinoma. In 1 case the cells were large and spheric. They were superficially similar to the paralutein cells of a mature corpus luteum. The appearance of the cells suggested that they were in a state of activity. From their resemblance to paralutein cells it seemed reasonable to believe that they were secreting a hormone-like substance. The authors describe 3 similar cases in which these unusual cells were found. Studies on control cases did not reveal these cells. They were unable to trace any reference to these cells in the literature. The cells are secretory in type, yet differ morphologically from known ovarian cells. They are found only in relatively small numbers and may be extremely difficult to detect. A single section through the ovary is insufficient, as a general rule, to demonstrate them. The cells may possibly be carcinogenic, secreting a hormone which stimulates some of the cells of the endometrium of the body of the uterus and cervical canal to undergo malignant change.

Infantile Diarrhea and Vomiting.—Taylor, Powell and Wright report a combined clinical and bacteriologic investigation of infantile diarrhea and vomiting. The clinical material was drawn from one outbreak of epidemic diarrhea of the newborn (group A), two outbreaks of diarrhea and vomiting in a mothers and babies' hostel (groups B and C), one outbreak in a residential nursery (group D), intercurrent cases among sick babies in hospital (group E), two series of admissions to gastroenteritis units (groups F and G) and endemic diarrhea and vomiting in a residential nursery (group H). No recognized intestinal pathogen was isolated, and virus investigation of fatal cases yielded negative results. Bacterium coli serums, prepared from strains isolated from cases of group A, led to the identification of a particular serologic type, referred to as Bact. coli D 433. It was isolated from all 9 patients examined during life in this outbreak. The same serums were subsequently used for the identification of Bact. coli D 433 among the other groups of babies studied. It was isolated from all 22 cases of groups B, C and D, from 21 of the 23 cases in group E, from 6 of the 14 cases in group F, from only 5 of the 24 cases in group G and from none of the 14 cases in group H. Bact. coli D 433 was not isolated from any of the 208 babies of the control groups. Five babies with mild or moderate diarrhea and vomiting had severe relapses while in gastroenteritis units. The causative organism was not isolated from them during the initial attacks but was present during the relapses. Bact. coli D 433 was isolated from patients in seven counties and during all seasons of the year; it was isolated from 4 of 84 adult contacts and from 9 of 34 baby contacts examined in connection with groups A to E. It was not isolated from rectal swabs taken three to six months later from 82 infant occupants of nurseries and wards in which cases of diarrhea and vomiting (groups A to E) had been investigated. From 51 newborn babies, occupying the maternity nurseries in which epidemic diarrhea of the newborn (group A) had occurred, material for bacteriologic study was obtained more than a year after the outbreak. From 21 of them an anaerogenic, motile strain of coliform bacilli was isolated which was closely related antigenically to Bact. coli D 433. Ten of these babies had a mild form of diarrhea.

Edinburgh Medical Journal

56:173-220 (May) 1949

Workshop for Severely Disabled Men. T. Ferguson.—p. 187.
Carcinoid Tumour: Review of 17 Cases. B. Cruickshank and A. W. B. Cunningham.—p. 196.
*Clinical Trials of Analgeticum NU 896 and of Amidone. A. J. Glazebrook.—p. 206.

Analgeticum NU 896 and Methadone.—Analgeticum NU 896 is 1-isopropyl 4-phenyl 4-propionoxy piperidine hydrochloride. It is related to penthidine, and is not at present marketed. Methadone hydrochloride is 6-dimethylamino-4, 4-diphenyl-3-heptanone hydrochloride. It is marketed in Great Britain under the trade name of physeptone. Glazebrook reviews the results of pain threshold determinations with these preparations in 86 adults and presents a comparison of the analgesic power of morphine, methadone and analgeticum NU 896 in 110 patients with acute pain. He arrives at the conclusion that the last-mentioned drug has a limited application in the management of patients with incurable malignant disease in whom pain is extremely severe, as the drug is capable of affording a degree of relief not obtainable with morphine or with methadone. In such cases the tendency of the drug to produce euphoria instead of somnolence is usually an advantage, and the patients appreciate its nonconstipating action. Patients with painful malignant conditions of the mouth are particularly grateful, as the drug often enables them to enjoy their food. It gives rise to respiratory depression, comparable to that caused by morphine, and some patients cannot take it because of its unpleasant side effects. The feeling of well-being which so frequently follows its administration would undoubtedly lead to addiction in susceptible patients. Methadone frequently gives patients with moderate pain complete relief; it has less tendency to cause somnolence than does morphine, and it exerts little or no constipating effect. Its ability to cause euphoria much less pronounced than that of analgeticum NU 896 nevertheless exists. Thus it is liable to cause addiction.

Lancet, London

2:91-140 (July 16) 1949

Obstruction of Gastro-Oesophageal Junction. P. R. Allison.—p. 91.
Rôle of Cerebral Cortex in Apperception of Pain. G. W. Theobald.—p. 94.
Treatment of Kala-Azar with Hydroxystilbamidine. P. C. Sen Gupta.—p. 97.
Mechanical Respiration. U. Blackwell.—p. 99.
Haemolytic Transfusion Reaction Due to Anti-S. M. Cutbush and P. L. Mollison.—p. 102.
*Avian Tuberculosis in Man. I. Dragsted.—p. 103.
Typhoid Fever Treated with Chloromycetin. A. D. M. Douglas.—p. 105.

Avian Tuberculosis in Man.—According to Dragsted the avian type of Mycobacterium tuberculosis is a rod from 1 to 3 microns in length which resembles the other types of tubercle bacilli. Its pathogenicity for man is slight. Infection may occur by eating infected eggs, by contact with the organs of tuberculous hens, or by inhalation while cleaning out infected hen houses, since the excreta of tuberculous hens contain many tubercle bacilli. Many investigations have been carried out to determine the incidence of tuberculous infection in eggs. From 0.1 to 3 per cent of market eggs are infected with the avian tubercle bacillus. Between 1935 and 1948 tubercle bacilli of avian type were cultivated from 6 persons in Denmark. In all cases the cultures showed characteristic pathogenicity for animals. One patient died of the avian infection. Four patients

had local lesions, which have now healed, and the sixth still has a fibrous pulmonary tuberculosis. Two of the patients were examined with avian tuberculin. Both gave a positive reaction with 0.00002 mg.

Medical Journal of Australia, Sydney

1:797-824 (June 18) 1949

Chronic Thyrotoxic Myopathy, with Report of Case Including Electromyographic Studies. K. V. Sanderson and W. R. Adey.—p. 797.
*Continuous Postural Drainage: Essential Principle in Treatment of Diseases of Respiratory Tract. L. B. Elwell.—p. 804.

1:825-860 (June 25) 1949. **Partial Index**

Place of Hydrostatic Pressure in Treatment of Intussusception. T. Y. Nelson.—p. 825.
Blocking of Antibodies in Vivo: Preliminary Investigation. H. Harris and A. Shulman.—p. 828.
Treatment of Acute Haematogenous Osteomyelitis. J. Steigrad.—p. 832.
Delayed Labour. R. Beard.—p. 835.
Treatment of Empyema in Infancy and Childhood. D. Hipsley.—p. 838.

Continuous Postural Drainage in Respiratory Diseases.—According to Elwell natural means for clearing the respiratory passages of accumulated secretions are inadequate. In many cases of severe bronchitis, and in most cases of bronchopneumonia, there remains a residuum in those bronchi in which gravity favors such accumulation. This residuum may tend to create areas of atelectasis and fibrosis, with or without bronchiectasis. The original lesion frequently occurs in early childhood but it may occur in later childhood or adolescence, or, with a diminishing frequency of incidence, at any period during the rest of life. In many cases recovery from this lesion may appear complete until this permanent pulmonary damage is aggravated by a fresh infection. The author advocates removal of secretions by continuous postural treatment. Adequately applied in the initial acute phases of respiratory infections, postural drainage not only will expedite a satisfactory recovery, but may largely inhibit the progressive inflammatory disease. Should the condition progress and become chronic, benefit may still accrue from perseverance with postural drainage. Treatment may even lead to a virtual arrest of the disease. Once there is recognition of the need for continuous postural drainage as an essential principle in the treatment of all diseases of the respiratory tract, including asthma and hay fever, recovery from acute infections will be greatly facilitated and the progressive development of the grave chronic disabilities should be largely preventable.

Acta Oto-Laryngologica, Stockholm

37:193-286 (June) 1949. **Partial Index**

Penicillin Treatment of Simple Acute Otitis Media. N. Riskaer.—p. 230.
Primary Reduction of Large Operation Cavity in Radical Mastoidectomy with Muscle-Periosteal Flap. Y. Meurman and L. Ojala.—p. 245.
Surgical Treatment of Facial Palsy. H. Schjelderup.—p. 261.
Extracranial Aneurysm of Internal Carotid Artery: Report on Case. S.-G. Sjöberg.—p. 276.
*Spinae of Septum Nasi in Patients Suffering from Bronchial Diseases. G. de Wit.—p. 280.

Spines on Nasal Septum in Patients with Bronchial Diseases.—According to de Wit search is often made for rhinogenic factors in cases of asthma. The fact that the removal of an exceptionally large and sharp spine from the nasal septum had a favorable influence in some cases of bronchitis induced de Wit to investigate this matter further. He had the opportunity to make rhinologic examinations on thousands of military personnel in Java who had asthmatic or other forms of bronchitis. He found that a spine on the nasal septum was unusually frequent in men with asthma or persistent bronchitis. This septal spine is located in the back part of the nose, usually 1 to 1.5 cm. from the bottom of the nose. It is sharp and generally does not obstruct the nasal passage. It forms during the pubertal growth period. The author explains the etiologic basis and structure and says that from the statistics and from the fact that the bronchial disease develops after the growth of the spine, the conclusion may be drawn that these spines play a certain role in some cases of asthma and persistent bronchitis.

Medizinische Klinik, Munich

44:881-912 (July 15) 1949. **Partial Index**

*Adrenal Cortex Hormone in Treatment of Jaundice. P. Büchmann and H. Schulze-Buschoff.—p. 881.
Vascular Spasm and Sympathectomy. E. Müller.—p. 892.
Technic and Significance of Determination of Prothrombin in Combating Thrombosis and Embolism. E. Antonowitsch.—p. 898.

Adrenal Cortex Hormone in Treatment of Jaundice.—Büchmann and Schulze-Buschoff list the following reasons for the use of the adrenal cortex hormone: 1. The substance rectifies the disturbances in the ion and water exchanges that exist in hepatitis. 2. It accelerates the absorption of sugar in the small intestine, because it makes possible phosphorylization, which in turn promotes absorption of dextrose. Utilization of orally administered sugar is likewise promoted. 3. The building-up of glycogen in musculature and liver is promoted by the adrenal cortex hormone as the result of the accelerated resynthesis of lactic acid. According to the prevalent opinion a certain glycogen content of the hepatic cell is a requirement for adequate hepatic function. 4. Since the function of the adrenal cortex can be impaired by almost any infection, and since damage to the adrenal cortex is often found in diseases of the hepatic parenchyma, treatment with the endocrine substance has the effect of a substitutional or protective therapy. Many observers, including the authors, noted that small doses of desoxycorticosterone acetate do not always produce the desired results. The authors attempted massive therapy. They administered 40 mg. of desoxycorticosterone acetate by intramuscular injection on the first day, and 30 mg. on the second and third days, a total of 100 mg. in three days. This protective treatment with desoxycorticosterone acetate effected a rapid cure in 25 patients with hepatitis, particularly in the protracted forms, and in hepatitis of diabetic patients.

Nederlandsch Tijdschrift v. Geneeskunde, Amsterdam

93:1657-1756 (May 21) 1949. **Partial Index**

*Epidemic of Hepatitis in Diabetic Patients Attending Same Clinic. C. H. W. Leeksma.—p. 1681.
Case of Leptospirosis Canicola with Prolonged Fever. P. Blanksma.—p. 1704.
Disease of Isambert: Miliary Tuberculosis of Pharynx. W. A. Griep.—p. 1706.

Epidemic of Hepatitis in Diabetic Patients Attending a Clinic.—Leeksma says that 22 cases of hepatitis occurred in a polyclinic in which about 250 patients received treatment for diabetes. Eighteen of the cases occurred between March and August. The author is of the opinion that inadequately sterilized syringes were responsible for this epidemic of hepatitis.

Prensa Médica Argentina, Buenos Aires

36:1201-1236 (July 1) 1949. **Partial Index**

*Noncalculous Cholecystopathies and Cardiac Disease. M. R. Castex.—p. 1201.

Noncalculous Gallbladder Disease and Cardiac Disorders.—Castex states that acute or chronic noncalculous infectious cholecystitis can aggravate a preexisting cardial infection or cause cardiac functional disorders which develop into organic cardiac disease. Noncalculous infectious cholecystitis constitutes a shock capable of provoking allergic reactions of the heart and cardiac tissues. Cardiac allergy is the most frequent pathogenetic factor of cardiac disorders due to noncalculous infectious cholecystitis. Toxic, degenerative, infectious and nervous-reflex factors may be absent or present as subordinate factors. The pathogenetic allergic concept, in itself, is adequate to explain the frequency of coronary sclerosis, coronaritis, angina pectoris, myocarditis, several types of arrhythmia, endocarditis and other cardiac disorders which develop in patients with noncalculous infectious disease of the gallbladder. The results of cholecystectomy with clinical and electrocardiographic disappearance of myocarditis, endocarditis, arrhythmia, angina pectoris and other cardiac disorders due to gallbladder disease are confirmatory of the allergic nature of this type of cardiac disorders.

Presse Médicale, Paris

57:627-638 (July 6) 1949. **Partial Index**

Diabetes as Sequela of Vaccinal Encephalitis; Course Resembling Young's Diabetes. J. Justin-Besançon, M. Lamotte and S. Lamotte-Barrillon. —p. 627.
Biologic Aspects of Certain Osteopathies. F. Poilleux and A. Sluczewski. —p. 629.
*Treatment of Tuberculous Meningitis with Streptomycin. R. Rivoire and A. Colleau.—p. 632.

Streptomycin in Tuberculous Meningitis.—Rivoire and Colleau treated 30 patients having tuberculous meningitis with streptomycin. Intensive treatment by combined intrathecal and intramuscular routes is indispensable. Intrathecal treatment requires the use of an isotonic solution of streptomycin. The amount of twice-distilled water which must be added to 1 Gm. of streptomycin varies from 30 to 40 cc. with the commercial preparation of streptomycin. The intrathecal injection must be made slowly for at least five minutes. Two injections of 0.1 Gm. daily may be given for three weeks to one month, then one injection daily for another month, and one injection every second or third day for a third month. As a rule, 2 Gm. of the drug may be given daily by the intramuscular route to adults, 1.5 Gm. to children and 1 Gm. or less to suckling infants. Ten of the authors' patients had been followed up for more than one year after treatment was discontinued. The risk of recurrence is practically zero, and they may be considered cured. Twelve of the remaining 20 patients are in good condition with treatment being continued. Four patients were failures: 3 of them died, but the fourth is now in good condition in spite of a recurrence after six months.

Riforma Medica, Naples

63:505-524 (June 4) 1949. **Partial Index**

*Mechanism of Action of Liver Therapy in Pernicious Anemia. G. Oliva and C. Tramontana.—p. 505.

Liver Therapy in Pernicious Anemia.—Oliva and Tramontana gave 2 patients with pernicious anemia intravenous injections of 20 cc. of plasma, twice a day for twelve consecutive days. One patient was given plasma from another patient with pernicious anemia who was in the stage of active regeneration of blood in the course of hepatic therapy. The other patient was given plasma from a normal person who was receiving liver therapy in the same form and same doses as in the anemic donor. Administration of plasma from a donor with pernicious anemia to a recipient with the same disease controlled all clinical symptoms of the disease and improved the general condition of the recipient. Sternal erythropoiesis and the globular value of the blood became almost normal, the red cells increased and hypersideremia diminished. In the anemic recipient who was given plasma from a normal donor the clinical symptoms, peripheral hematologic, bone marrow changes and general condition did not change. They were controlled by liver therapy after failure of the plasma therapy. These results show that Castle's antipernicious factor stimulates normal erythropoiesis through a reticulogenic factor which results from an organic reaction in which Castle's antipernicious factor and iron and vitamins in the blood are mechanisms of equal value.

Schweizerische Zeitschrift für Tuberkulose, Basel

6:209-272 (No. 4) 1949. **Partial Index**

*Principles and Results of Immunization Against Tuberculosis by Means of BCG. J. Heimbeck.—p. 209.
Thrombopenic Purpura in Patients with Tuberculosis of Spleen. R. Lapp. —p. 235.
Successful Streptomycin Therapy of Miliary Tuberculosis During Pregnancy and Puerperium. A. Gilg.—p. 250.
Clinical Aspects of Perforating Tuberculosis. W. Isler.—p. 255.

Principles and Results of Immunization Against Tuberculosis by Means of BCG.—Heimbeck points out that some years ago it was generally accepted that most human beings in civilized countries become infected with tubercle bacilli during childhood and that tuberculosis even in adults is caused by the childhood infection. On the basis of this idea, immunization with BCG had been used chiefly in young children and in natives not having had much contact with subjects from civilized countries. Observations on nurses who had contact with tuberculous patients convinced the author that the concept of childhood infection was largely erroneous, for when the majority of the nurses still gave negative Pirquet reactions at the age of 20, a majority could not have contracted tuberculosis during childhood. The author describes further studies on tuberculosis, particularly its prevalence, the reliability of tests and the value of parenteral rather than oral immunization with BCG. He quotes figures which show that in the Scandinavian countries large numbers of persons have been immunized against tuberculosis by means of BCG. Where this has been done tuberculosis has decreased among those who have been immunized, not only in comparison with those not immunized but also in comparison with older statistics. The author accepts as definitely proved that persons who give a positive reaction to the Pirquet test are resistant to tuberculosis and those with a negative Pirquet reaction are susceptible. He is convinced that no other tuberculin test gives a clearer demonstration of susceptibility and resistance. Parenteral immunization with BCG can be done either by the subcutaneous or cutaneous route. The subcutaneous injection produces a stronger local reaction than does the intradermal technic by scarification or puncturing. The intensity of allergy is directly dependent on the intensity and duration of the local reaction. The attitude of the individual patient is of some importance, for there are some who do not object to a suppurating abscess that persists for several months, whereas others feel greatly impaired by it. The author generally employs the intradermal method by dividing the total dose of 0.1 mg. into three to six doses, each of which produces a small papule. This technic involves the least risk of abscess formation and still produces a satisfactory allergy. Improvement of the present technic is possible. Uncontrolled mass vaccination may lead to momentary success but is apt to bring reverses. The more BCG vaccination is practiced, the more important is it to stabilize its conditions.

Semaine des Hôpitaux de Paris

25:2217-2254 (July 14) 1949. **Partial Index**

Case of Transitory Paroxysmal Hypertension, Following Lumbar Infiltration for Trophic Disturbances as Sequela of Paralysis of Sciatic Nerve. R. Fontaine, G. Stoll and S. Kayser.—p. 2217.
Case of Late Gastric Stenosis After Burns Due to Ingestion of Caustic Soda Solution. R. Joyeux, Marchal and Pedoussaut.—p. 2221.
*Effect of Topectomy on Irreducible Pain with Regard to 2 Cases of Causalgia. J. Le Beau and J. Gaches.—p. 2226.

Topectomy for Irreducible Pain.—Le Beau and Gaches performed topectomy involving removal of the cortical zone of each frontal lobe which corresponds to the rostromedial portion of the areas 9, 10 and 46, on 25 patients, 15 men and 10 women between the ages of 28 and 74 years, with intractable pain. Two were cases of causalgia, 1 of thirty-four years' duration in a man aged 57, which resulted when the median nerve was cut by the explosion of a bullet, and 1 of seven months' duration in a man aged 47, which resulted from cutting of the median nerve and trauma of the ulnar nerve in an automobile accident. In the first case topectomy was first performed on the left side and five weeks later on the right side, but in the second case bilateral topectomy was performed in one stage. Unilateral topectomy proved insufficient. Bilateral topectomy was effective in relieving the "pain of unpleasant quality" and the anxiety of the patient at the same time. Topectomy raised the threshold of the "unpleasant pain." The latter is a peculiar condition of sensibility which develops in patients affected by pain that cannot be endured because of its frequency or its intensity. One may measure in some degree the "unpleasant pain" by the anxiety; the anxiety loses its vague character of a "mental" reaction by becoming a physiologic property conditioned by the function of certain portions of the brain. The results of bilateral topectomy in the entire series of 25 cases followed up to twenty months were highly satisfactory. The absence of persistent mental disturbances after the surgical intervention makes topectomy preferable to bilateral leukotomy. Topectomy also suppressed the toxicomania of some of the patients, even in cases in which the pain did not disappear. There were 4 such failures. Five deaths occurred four days to two months after the operation. Topectomy is contraindicated in arteriosclerotic patients over 60 with hypertension and in patients whose general condition is unsatisfactory. Unilateral leukotomy using Scarff's method may be preferred to topectomy in these cases.

Book Notices

Aviation Medicine in Its Preventive Aspects: An Historical Survey. By John F. Fulton, O.B.E., M.D., D.Sc., Sterling Professor of Physiology, Yale University, New Haven, Conn. University of London Heath Clark Lectures 1947 Delivered at the London School of Hygiene and Tropical Medicine. Cloth. Price, $3.50. Pp. 174, with 43 illustrations. Oxford University Press, 114 5th Ave., New York 11; Amen House, Warwick Sq., London, E.C. 4, 1948.

This handy little book is a compilation of the five "Heath Clark" lectures delivered by Dr. Fulton at the London School of Hygiene and Tropical Medicine in 1947. These lectures were essentially a historical review of the background of aviation medicine.

For the purpose of his presentation and to highlight the more important developments in the field of aviation medicine, the author selected the following topics for discussion: (1) Altitude Sickness and Acclimatization (The History of Oxygen), (2) Decompression Sickness (The Genesis of the Tissue Bubble), (3) Pressure Cabins and Explosive Decompression (The Spring of the Air), (4) Effects of Acceleration (Dim-Out and Black-Out, Protective Measures) and (5) Man and the Machine (Problems of Safety in Flight).

Extensive references follow each topic. The volume is attractively illustrated with a choice selection of old and modern figures.

In discussing acceleration and the advent of planes with supersonic speeds the author predicted that the subject would continue to loom large in the immediate future of civil as well as military aviation and stated that experimental analysis of the acceleration problem must be looked on as still in its infancy. He further emphasized that he knew of no subject on which continued research is more urgently needed.

The author writes entertainingly, and the book offers enjoyable as well as instructive reading. As a useful source of information and references, the book is a valuable addition to the library of the flight surgeon, the physiologist, the aeronautic engineer, the research worker and others interested in the special and highly diversified field with which it deals. The book is a fit and reciprocal companion for Dr. Fulton's comprehensive bibliography of aviation medicine published by the Yale University Press in 1942.

Up from the Ape. By Earnest Albert Hooton, Professor of Anthropology, Harvard University, Cambridge, Mass. Second edition. Cloth. Price, $5. Pp. 788, with illustrations. The Macmillan Company, 60 Fifth Ave., New York 11, 1947.

The first edition of this book was published in 1931. In the eighteen years that have elapsed since that publication, far more has been learned about human evolution and the evolution of the apes than was known previously. The quality of Professor Hooton's writing has been widely recognized as adapted to interpretation by the average reader.

The author discusses the quality of brain that makes men of various types vary in their accomplishments. The book is full of interesting aphorisms and anecdotes. For instance, "No anthropologist or anatomist believes that there is any relationship between the form of individual features of the face and the character or abilities of the owner." "Man is perhaps the most promiscuous animal ever evolved in the matter of indiscriminate interbreeding between races, varieties and species (if there is more than one human species). This is why there is probably no such thing as a pure race existing today in the world."

Of special interest to physicians is the consideration given by Professor Hooton to body build and disease and behavior. Professor Hooton finds that evidence of positive and progressive evolution of man since 10,000 years ago is not known. "It is easy enough," he says, "to point out the appearance and multiplication of retrogressive and degenerative characters" and "Natural selection has been largely nullified by man's ignorant and purposeless monkeying with his own biological evolution, although most of this interference has been primarily exerted through cultural and social agencies."

The Technique of Pulmonary Resection. By Richard H. Overholt, M.D., Clinical Professor of Surgery, Tufts College Medical School, Boston, Mass., and Lazaro Langer, M.D., Instructor in Surgery, University of Córdoba, Córdoba, Argentina. Cloth. Price, $8. Pp. 193, with 71 illustrations. Charles C Thomas, publisher, 301-327 E. Lawrence Ave., Springfield, Ill., 1949.

Drs. Overholt and Langer discuss the technic of pulmonary resection. By pulmonary resections the authors mean not only pneumonectomy but also lobectomy and segmental resection.

Anatomy is clearly outlined. Inasmuch as the relative position of the important vessels to each segment, lobe and lung is different, the authors describe the technic for resection of each separately. Space is devoted to preoperative and postoperative treatment and anesthesia.

The book is authoritative. Dr. Overholt had much to do with the development of the technic of individual ligation of the vascular and bronchial structures to each segment, lobe and lung, and the operative procedures discussed are those which he uses. The authors, for the good reasons which they present, favor the posterior approach wherever possible, and this approach is the one described for pneumomectomy, lobectomy and certain segmental resections. Although the emphasis of the book is on the technic of operation, a short but important section of the book has been devoted to diagnosis at operation and amount of resection indicated.

The book is written in clear, simple and easily understandable English, and the illustrations facilitate comprehension of the text matter. The book should be read by every surgeon who ever intends to do a pulmonary resection.

Control of Pain in Childbirth: Anesthesia, Analgesia, Amnesia. By Clifford B. Lull, M.D., F.A.C.S., F.I.C.S., Director, Division of Obstetrics and Gynecology, Philadelphia Lying-In Unit, Pennsylvania Hospital, Philadelphia, and Robert A. Hingson, M.D., F.I.C.S., F.A.C.A., Associate Professor of Obstetrics; Anesthesiologist, Department of Obstetrics, Johns Hopkins University and Hospital, Baltimore. With an introduction by Norris W. Vaux, M.D., Consulting Obstetrician and Gynecologist, Philadelphia Lying-In Unit of Pennsylvania Hospital. Third edition. Fabrikoid. Price, $12. Pp. 522, with 172 illustrations. J. B. Lippincott Co., 227-231 S. 6th St., Philadelphia 5, 1948.

Drs. Lull and Hingson have made a comprehensive review of the subjects mentioned in the title of their book. They have covered well the anatomy and physiology of pain occurring in the puerperal woman. Of special interest is their detailed coverage of spinal and caudal anesthesia. The structure and chemistry of anesthetic agents and their action on the different parts of the nervous system are well discussed. The work of Dr. Reed of England using mental suggestion for the control of pain during childbirth is adequately reviewed and evaluated. No attempt is made by the authors to convert one to the use of any particular anesthetic. The advantages and disadvantages are frankly discussed, and as such the work is a valuable contribution. The subject matter is well illustrated, presented in logical sequence and easy to read.

Charters of Philanthropies: A Study of Selected Trust Instruments, Charters, By-Laws, and Court Decisions. By M. M. Chambers, Director, Foreign Universities Project of the American Council on Education. With a foreword by Edward C. Elliott. Paper. Pp. 247. The Carnegie Foundation for the Advancement of Teaching, 522 Fifth Ave., New York 18, 1948.

The growth of various foundations established in the United States by individuals or group philanthropies is one of the distinct aspects of American life. This book discusses the charter purposes of thirty-seven foundations and the organization of their governing boards and their relationship to public authorities. A second portion of the book includes the text of articles of incorporation and trust agreements by which some eighteen foundations have been established. The book concludes with reference to legal cases in which foundations have been involved and a good bibliography.

Der praktische Arzt und die Tuberkulose. Von Professor Dr. Hellmuth Ulrici. Paper. Price, 7.50 marks. Pp. 165, with 4 illustrations. Springer-Verlag OHG, Jebensstrasse 1, Berlin-Charlottenburg 2, 1948.

This monograph is a practical presentation of almost everything the physician encounters in tuberculosis. The author first treats the disease as an infection and then discusses pathogenesis and pathologic anatomy.

Part I includes a detailed discussion of the necessary steps in diagnosis of tuberculosis of the lungs and pleura. Both the acute and chronic forms of the disease are included. Considerable space is given to primary tuberculosis and its sequelae. The development of primary tuberculosis in young adulthood is given careful consideration. All modern procedures, including the tuberculin test, roentgen inspection and blood studies, are adequately presented. Part II is devoted to the management of the patient by the practicing physician. This contains information concerning general treatment, control of symptoms and treatment of pleural tuberculosis, including spontaneous pneumothorax and collapse therapy. Part III is set apart for extrapulmonary tuberculosis, including that of the lymphatic system, bones, joints, urogenital organs, skin, eyes and ears. A good discussion is presented on the psychology of the tuberculous patient.

Textbook of Genito-Urinary Surgery. Edited by H. P. Winsbury-White, M.B., Ch.B., F.R.C.S., Surgeon, St. Paul's Hospital for Genito-Urinary Diseases, London. Cloth. Price, $20. Pp. 1046, with 451 illustrations. Williams & Wilkins Co., Mt. Royal & Guilford Aves., Baltimore 2, 1948.

The forty contributors to this textbook are all experts in the various phases of urology on which they have written. Prominent among the contributors are distinguished surgeons such as Swift Joly, Terence Millin, Clifford Morson and Jocelyn Swan. The book does not include every minor clinical entity in urology but should be useful to the student and to the experienced urologist. Several chapters are devoted to prostatectomy in all its aspects and are valuable. Discussion of the use of sulfonamide drugs and the newer antibiotics is up to date. The illustrations are excellent; especially noteworthy are those showing pathologic conditions as seen through the cystoscope. The discussion of bladder neck lesions is full and well illustrated. In general it may be said that this volume is a distinct contribution to urologic literature and its appearance should be welcomed by all urologists.

Clinical Studies in Psychopathology: A Contribution to the Aetiology of Neurotic Illness. By Henry V. Dicks, M.A., M.D., F.R.C.P. Nuffield Professor of Psychiatry in the University of Leeds, Leeds. Second edition. Cloth. Price, $4.50. Pp. 238. Williams & Wilkins, Mount Royal and Guilford Aves., Baltimore 2, 1947.

The British experience of psychiatry during and since World War II is much like that of the Americans. The present volume represents a modified freudian approach to psychiatry. The extensive practice of the author has permitted citations from many case reports, which make graphic the presentation of various psychologic concepts. The author insists that he does not follow the official freudian doctrine but that his book represents modern psychoanalytic thought. The author recognizes that psychopathology and psychotherapy will never become exact sciences but that great progress has been made in restoring the human element to medicine. Psychosomatic medicine probably represents an established scientific approach to many medical problems. The author has a fine ability for brief descriptions of his patients which makes them more alive and human than does the average case report.

Projective Methods. By Lawrence K. Frank, Director, Zachry Institute of Human Development, New York City. Publication Number 10 American Lecture Series. A Monograph in American Lectures in Psychology. Edited by Molly Harrower. Fabrikoid. Price, $2.75. Pp. 86. Charles C Thomas, 301-327 East Lawrence Ave., Springfield, Illinois, 1948.

The utilization of projective technics has become almost a necessity in the study of personality, and, as the author of this excellent little monograph states: "What is also significant is the growing reliance, of psychotherapists and others engaged in counseling, upon various tests and procedures to provide a diagnosis, or at least to give some initial understanding, of the character-structure and personality makeup, especially the emotional or affective reactions, of the individuals whom they are preparing to diagnose or treat, advise or counsel."

The author discusses briefly, but clearly, the different methods employed, the first being the constitutive method, the oldest and best developed of which is the Rorschach test. In the second, or constructive, method the subject is required to construct an object or objects out of previously prepared material. The third is the interpretative method, best exemplified by the thematic apperception test, which is designed to reveal how a person feels about many emotional aspects of life. The fourth, or cathartic, method relates to situations in which a subject is exposed to an emotional or dramatic experience, such as seeing a movie or listening to a story, and individual reactions to the situations involved are observed. The last, designated as the refractive method, relates to written or verbal communications based on the knowledge that each person employs his own language and his own, individualized handwriting. Both language and handwriting may be examined and evaluated. All the material presented is exceptionally well organized and clearly presented, and the book has an excellent bibliography.

Contemporary Schools of Psychology. By Robert S. Woodworth, Ph.D., Sc.D., LL.D. Second edition. Cloth. Price, $3. Pp. 279, with illustrations. The Ronald Press Co., 15 E. 26th St., New York 10, 1948.

The growth of psychology has been marked by the establishment of several schools of thought, the situation resembling somewhat that in medicine of a previous century with eclecticism, homeopathy and similar concepts. This text devotes sections to behaviorism, associationism, Gestalt psychology, psychoanalysis and other concepts. The concluding chapter, called "The Middle of the Road," would remove the schools from psychology and yield a general science composed of man's knowledge of how men think. The present trend is toward a psychology of personality.

Comparative Anatomy: An Introduction to the Vertebrates. By Leverett A. Adams, University of Illinois, Urbana, Ill., and Samuel Eddy, University of Minnesota, Minneapolis, Minn. [Third edition of Introduction to the Vertebrates, by Leverett A. Adams.] Cloth. Price, $5. Pp. 520, with 364 illustrations. John Wiley & Sons, Inc., 440 4th Ave., New York 16; Chapman & Hall, Ltd., 37-39 Essex St., Strand, London, W.C. 2, 1949.

This book replaces the "Introduction to the Vertebrates" written by the senior author in 1933. The material has been organized into two parts to make it more flexible for use in a variety of courses in vertebrate zoology. It is well written and adequately illustrated by line drawings. The content is sufficient for a full course in comparative anatomy but has been so planned that the student, regardless of previous training, will be able to follow the text without difficulty. The book deserves wide adoption for college courses. Part I consists of five chapters embracing the general review of the vertebrates. Part II, the larger part of the book, is a detailed account of the comparative anatomy of the vertebrates in twelve chapters arranged by organ systems.

The Objective Method of Dream-Interpretation Derived from Researches in the Oriental Reminiscence State. By Major Satya Nand, M.B.B.S., I.M.S., P.C.M.S., Assistant Professor, Physiology, Medical College, Amritsar, Punjab, India. Boards. Pp. 256, with illustrations. Kitabistan, Allahabad, United Provinces, India [n. d.].

This privately published brochure on dream analysis cannot be reviewed because its contents are not understandable. The words employed are legitimately English but apparently have a private meaning for the author and their combinations make no sense for the reader. Apparently the writer rejects all previous theories of dream structure and purpose and has developed a "mechanical method of dream interpretation." There are diagrams and tables as well as case histories, but their validity could not be evaluated for proving the author's conclusions.

To the Builders of Tomorrow. By Madhuri Desai. Foreword by R. N. Cooper, M.S. Cloth. Price, $4. Pp. 186, with illustrations by Nivedita Parmanand and photographs by Sunil Janah. Oxford University Press, 114 Fifth Ave., New York 11; Amen House, Warwick Sq., London, E.C.4, 1948.

In the form of letters to Indian children, the author of this book tells of the diseases that devastate India and a little of what modern medicine has done. The work is somewhat elementary. A final chapter urges the adoption for India of a complete socialized medicine designed on the plan of Russia.

Historical Introduction to Modern Psychology. By Gardner Murphy. Revised edition. Cloth. Price, $6. Pp. 466. Harcourt, Brace & Company, Inc., 383 Madison Ave., New York 17, 1949.

Modern psychology is like a rapidly expanding delta, being enlarged constantly by rivers and rivulets of research and theory. Without a guide one can scarcely succeed in tracing the main currents nor in distinguishing them from cul-de-sacs. Professor Murphy's book is as good a guide as one is likely to find. Its value has been demonstrated through continued popularity of its first edition, printed twenty years ago. The present revision seems mellower, tighter and more felicitous in style. It also handles more successfully the problem of contemporary developments which, of course, are always difficult to see in proper historical perspective. In the present edition the author stops his account of systems and schools of thought with his relatively brief but sharp-pointed exposition of Gestalt and freudian psychology. More recent developments he handles in the last eighth of the volume under the noncommital title of "Some Representative Research Areas."

The medical reader will find helpful the incisive accounts of psychoanalytic doctrine, both orthodox and dissident, of hypnotism and of French medical psychology. The author ascribes the sweep of psychoanalytic theory and practice in Britain and in America after World War I in part to the failure of physicians in handling wartime psychologic disorders. An exaggerated faith in concussion as an explanatory principle gave way to an exaggerated faith in the unconscious.

The author is himself a broad-gaged psychologist, equally at home with the biologic and with the cultural foundations of mental life. His own point of view is judicial and eclectic. Murphy is well known for his previous work on personality, on social behavior, on memory and in the field of parapsychology. Referring to studies of extrasensory perception he reports the hostility and suspicion with which such investigations are now greeted and adds a bit acidly, "This is a very familiar story in the history of science; for one is dealing with a foreign body in the science of today, and there is trouble in digesting foreign bodies." It will be an interesting day indeed when psychology is forced to rearrange all its major premises to accommodate extrasensory perception—if ever it is.

Considering the immensity of its subject the volume is remarkably brief. Year by year psychology is becoming more influential as a factor in science and as a factor in therapy. Those who wish to understand this spread of influence in terms of its antecedents will do well to engage Murphy as their guide.

Occupational Marks and Other Physical Signs: A Guide to Personal Identification. By Francesco Ronchese, M.D., Instructor in Dermatology, Boston University School of Medicine, Boston. Foreword by John G. Downing, M.D., Professor of Dermatology, Boston University School of Medicine and Tufts College Medical School, Boston, Mass. Cloth. Price, $5.50. Pp. 181, with 151 illustrations. Grune & Stratton, Inc., 381 4th Ave., New York 16, 1948.

After publishing a condensation of his speech as an important paper in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, Dr. Ronchese has now elaborated his interesting studies in book form. This subject is fascinating and should prove interesting particularly to workers in occupational medicine who see the damaging results of various industries on the external appearances of workers more frequently than do other physicians. The book is excellently illustrated and has one of the best bibliographies of industrial dermatology thus far available.

Medicine Under Canvas: A War Journal of the 77th Evacuation Hospital. Leather. Price, $10. Pp. 196, with illustrations. The Sosland Press, Inc., Kansas City, Mo.; Medicine Under Canvas, University of Kansas Medical Center, 39th & Rainbow, Kansas City 3, Kans., 1949.

This is a history of the 77th Evacuation Hospital, a 750-bed unit affiliated with the Medical School of the University of Kansas, during its service from 1941 to 1945. During this period the unit trained in the United States, after which it operated hospitals in England, North Africa and Sicily. It was then returned to England, where it again operated a hospital prior to moving to Northwest Europe in support of the Allied invasion. It is the saga of a mobile Army hospital, newly organized, untrained and untried in participation in modern war, and of its development into a well trained, well organized and toughened unit, ready to meet any situation, tactical or professional.

Although not a carefully documented history, it is definitely more than a "yearbook" or "college annual," as are many unit histories. Detailed accounts are given of the many problems faced in field operations in a combat theater with detailed accounts of the solutions that were found. It is immediately obvious that adequate records were kept, providing the necessary basis for the writing of such an account. It will serve two useful purposes: first, as a source of pleasure and inspiration to all who were members of the unit or who were closely associated with it in any way and, second, as an excellent account of the organization, training and operation of a 750 bed evacuation hospital in a combat zone in time of war.

Die synkopalen Anfalle. Von Dozent Dr. med. habil. Walter Schulte. Sammlung psychiatrischer und neurologischer Einzeldarstellungen. Herausgegeben von K. Conrad, W. Scheid und H. J. Weitbrecht. Second edition. Paper. Price, 9.60 marks. Pp. 92, with 4 illustrations. Georg Thieme, Diemershaldenstrasse 47, Stuttgart-O, 1949.

This monograph is a survey of different forms of syncope due to vegetative and vasomotor disturbances as seen by a psychiatrist. The clinical symptomatology of the attacks, the trigger mechanisms for their appearance, the course of the disease and the psychosomatic status of the patients are described. An attempt is made to distinguish five different types, illustrated by clinical cases, viz., reflex reaction to pain and fear, exhaustion, a cardiovasomotor form, an orthostatic form and an "endogen-cyclic" form. The differentiation of these types of syncope from epilepsy, hysteria, narcolepsy, hypoglycemia and tetany is discussed. From the cardiovascular standpoint the connection of attacks of syncope with orthostatic hypotension is stressed and postural changes of the electrocardiogram sometimes occurring in these patients are shown. However, no mention is made of either the Stokes-Adam's syndrome or the syndrome of hypersensitive carotid sinus as causative factors of syncope. Lewis' concept of vasovaginal type of syncope is also not taken into consideration.

Oral and Dental Diagnosis, with Suggestions for Treatment. By Kurt H. Thoma, D.M.D., F.D.S.R.C.S., Brackett Professor of Oral Pathology, Harvard University, Boston, Mass. With Contributions by Henry Goldman, D.M.D., Head of the Dental Department, Beth Israel Hospital, Boston, and Fred Trevor, D.M.D. Third edition. Cloth. Price, $9.50. Pp. 563, with 776 illustrations. W. B. Saunders Company, 218 W. Washington Sq., Philadelphia 5; 7 Grape St., Shaftesbury Ave., London, W.C.2, 1949.

The third edition of Oral and Dental Diagnosis is a completely rewritten book with over a hundred new illustrations to depict more accurately the symptomatology of disease and the technics of examination. The objective is the same as that which motivated the original writing of the book: to present for each disease entity a clinically complete diagnostic description, with technics of history taking, physical examination and laboratory tests. Data is also given on etiology, pathologic development and historic changes in relation to evident symptoms so that diagnosis may be both effective and inclusive.

The new materials include the fluorides for prophylactic treatment, subgingival curettage in periodontal disease, gingivectomy in periodontal disease, treatment of intrabony pocket, treatment of glossodynia and treatment of fractures of the maxillae. In "Diagnosis of Fractures of the Teeth and Jaws," the treatment of fractures of the teeth and jaws seems to be treated too lightly. Less than 2 pages are devoted to the treatment and 8 illustrations. Plastics and palatal splints are not mentioned. This book is a must for every dental office and student and a worth while addition for the physician.

Encyclopedia of Medical Sources. By Emerson Crosby Kelly, M.D., F.A.C.S., Associate Professor of Surgery, Albany Medical College, Albany. Cloth. Price, $7.50. Pp. 476. Williams & Wilkins, Mount Royal and Guilford Aves., Baltimore 2, 1948.

This is an encyclopedia of eponyms, many of which are without important standing, having long been discarded or forgotten. The work becomes essentially a medical biographic dictionary with references to the original writings which brought the physicians and scientists to notice. The book should be a useful addition to every medical library.

Queries and Minor Notes

THE ANSWERS HERE PUBLISHED HAVE BEEN PREPARED BY COMPETENT AUTHORITIES. THEY DO NOT, HOWEVER, REPRESENT THE OPINIONS OF ANY OFFICIAL BODIES UNLESS SPECIFICALLY STATED IN THE REPLY. ANONYMOUS COMMUNICATIONS AND QUERIES ON POSTAL CARDS WILL NOT BE NOTICED. EVERY LETTER MUST CONTAIN THE WRITER'S NAME AND ADDRESS, BUT THESE WILL BE OMITTED ON REQUEST.

SHOULD A PATIENT WITH HEART DISEASE FLY?

To the Editor:—Is it advisable for a patient with mitral stenosis (compensated) and paroxysmal auricular fibrillation to make a long flight in an airplane of the cabin type? Is there any likelihood of the patient's having dyspnea or auricular fibrillation from a 1,000 mile flight? This patient is taking 0.1 mg. of digitoxin (purodigin®) nightly and 18 grains (1.16 Gm.) of quinidine sulfate a day to reduce the number of extrasystoles and to try to prevent attacks of auricular fibrillation. M.D., Alabama.

ANSWER.—From past experience, there is no sound reason why air transportation should be interdicted in the case cited. Aviation medicine adheres to the axiom that if it is safe for a patient with heart disease to walk (meaning that compensation is well established) it is equally safe for him to fly, provided he is willing to take the supplemental oxygen kept aboard, should signs or symptoms of anoxic discomfort arise during the flight. On the pressurized-cabin type of plane the occasional need for the administration of oxygen to such persons has almost reached the vanishing point. A physician can now exercise a choice and advise his ambulatory patients to use the pressurized-cabin type of air transportation, with every assurance that the patient will complete the flight in safety and comfort without having to resort to the use of oxygen, which, however, should still be aboard and immediately available at all times for use in any anoxic emergency. No airliner is so completely pressurized as to maintain sea-level pressure in the cabin at all the cruising altitudes flown. A plane with pressurized cabin can be flown at altitudes around 15,000 or 16,000 feet with a "cabin altitude" around 5,000 feet—an altitude (anoxic) exposure in the cabin about that of Denver. Although paroxysmal auricular fibrillation can occur aloft just as it does on the ground, nothing in the flight itself, with the safeguards mentioned, should predispose a person to fibrillation. With the dosage of quinidine mentioned, fibrillation should not be expected to develop. As a matter of precaution, a person with heart disease should be advised not to engage passage on any type of airliner that does not have a supply of oxygen aboard for use by any passenger who may need it in an emergency, regardless of the "cabin altitude" to be flown.

DELIVERY OF A DIABETIC PATIENT

To the Editor:—What is the best obstetric delivery for a patient with diabetes? I understand that at New York Hospital it is customary to perform a cesarean operation four weeks before term and that this technic has lowered the fetal mortality and maternal morbidity rates.

M.D., New York.

ANSWER.—Cesarean sections are not performed routinely four weeks prior to term in the New York Hospital. The diabetic mother who does not have excessive gain of weight, evidence of toxemia and an excessively large infant should be allowed to go into labor spontaneously. If complications develop, termination of the pregnancy by cesarean section may be advised.

Termination of the pregnancy prior to the expected date of confinement is undertaken when the following conditions exist:

1. Toxemia. If toxemia does not respond promptly to treatment and the baby is viable, delivery should be undertaken regardless of the length of pregnancy. When there is edema of the anterior abdominal wall and excessive amounts of amniotic fluid, the accurate estimation of the size of the infant may be difficult. Much emphasis is placed on the calculated duration of pregnancy, and a cesarean section in these circumstances perhaps should be done if the pregnancy has reached the thirty-second week.

2. Ketoacidosis. If the diabetes has been complicated by episodes of ketoacidosis, even though toxemia is not present, premature delivery is recommended. These patients may lose their infants in utero at an unpredictable time, and it often occurs after the thirty-second week, when the baby is viable.

The excessively large infant poses a special problem. A common error is underestimation of the size of the fetus. In such instances the baby may be lost because of shoulder dystocia. For this reason cesarean section is advised if the baby is believed to weigh over 4,500 Gm. (10 pounds).

Under present conditions maternal morbidity is rarely a serious complication and it is hoped that adherence to the above recommendations will lower the fetal mortality.

EFFECT OF PREGNANCY ON ASTHMA

To the Editor:—My daughter, 35 years old, had bronchial asthma when she was 14. She has been examined in several clinics, and the condition always has been diagnosed as bronchial asthma, without discernible allergy as a possible cause. For three years she has been married and living in Denver. There was some improvement at first. One year later she became pregnant and was much better, but this improvement ended with the birth of the child. Within the last year she became pregnant again, and during this period her asthma completely left her. This was a twin pregnancy, and she had two healthy babies about seven weeks prematurely. For a week following delivery she continued to be free of asthma, and then it recurred. Has a report been published concerning the influence of pregnancy on asthma? M.D., Minnesota.

ANSWER.—Most patients with asthma are neither improved nor made worse during pregnancy. A few, as in this case, show definite improvement during the entire period, with recurrence of symptoms shortly after delivery. These patients usually are worse premenstrually and during the entire menstrual period. Most allergists regard the effect of pregnancy on asthma as secondary. Whether this is due to endocrine influences, changes in metabolic condition or changes of an immunologic nature is unknown. Failure to find definite causes usually classed as "allergic" in a patient whose asthma starts in the teens or earlier is unusual. One is tempted to recommend a thorough and, if necessary, a prolonged etiologic study. When the physician has definite antigens which are established as the causes of symptoms and which can be used as immunologic tools in treatment of asthma, the outlook is much brighter than when drugs are used for symptomatic relief only.

DIET IN DIABETES

To the Editor:—At a recent meeting I asserted that the proper management of diabetes is by diet control, with insulin used only to supplement the diet except in emergencies, when insulin would have to be used to bring a patient out of coma or for rapid preparation for major surgical treatment. Two professors of medicine disagreed with this program, contending that the treatment of diabetes was insulin therapy, with diet as a secondary measure. What is the prevailing point of view?

Lawrence G. Brown, M.D., Elizabeth, N. J.

ANSWER.—Most clinicians experienced in the treatment of diabetes regard restriction of diet as fundamental in treatment. Although some have advocated allowing a "free diet," most physicians believe that patients have better results both in the immediate present and the distant future by following a carefully regulated diet. Such a diet should be adequate in protein, minerals and vitamins and should furnish sufficient calories to maintain normal weight and strength. Restriction must be most careful with respect to carbohydrate, and many physicians use with success diets for adult patients which provide 150 to 200 Gm. of carbohydrate a day. The daily intake of fat is adjusted according to the body weight and caloric needs of the patient. Obesity is a handicap to the diabetic person, and it is a common observation that with loss in weight there is improvement in the carbohydrate tolerance of the obese adult diabetic patient.

If on a diet which is necessary to maintain weight and strength a diabetic patient does not have urine which is sugar-free or nearly so and blood sugar values which are within a satisfactory range, then insulin should be used without hesitation. Methods vary, but, in certain clinics in which large groups of diabetic patients are treated, up to 80 per cent receive insulin. Although in other clinics the percentage of insulin-treated patients is lower, the general aims and principles of treatment remain the same.

BRONCHOGRAPHY

To the Editor:—Please give a proper method for use by a radiologist who makes occasional bronchograms? In the past I have used 4 per cent cocaine as a spray and on sponges applied to the tonsillar pillars and pharynx. I have always applied the one pledget and waited about fifteen minutes to see whether there is any reaction. Recently a patient showed sensitivity to cocaine. I give seconal sodium® (sodium 5-allyl-5-[1-methylbutyl] barbiturate) about forty minutes prior to cocaine instillation. Would administration of diphenhydramine hydrochloride or some other antihistaminic agent several days prior to the bronchogram make the use of cocaine safe? R. Nelson Long, M.D., Selma, Ala.

ANSWER.—Good anesthesia is necessary for a good bronchogram. Anyone unaccustomed to applying the anesthesia is likely to overlook some of the factors which tend to prevent severe reaction. The premedication should consist of pentobarbital sodium, 1½ grains (98 mg.) one hour before the procedure is scheduled or phenobarbital sodium, 2 grains (130 mg.) given hypodermically one hour prior to the procedure. Morphine sulfate in the usual dosage may be given hypodermically three quarters of an hour before the procedure. Following is a simplified method of local anesthesia of the throat, larynx

and tracheobronchial tree for the instillation of iodized oil. The pharynx and hypopharynx are lightly sprayed with 2 per cent tetracaine hydrochloride with a total of not more than 0.5 cc. The final portion of the spray is directed downward over the base of the tongue and epiglottis, onto the larynx and into the pyriform sinuses. When the anesthesia has begun to take effect, 0.5 cc. of 10 per cent cocaine is instilled into the larynx drop by drop and a few minutes are allowed for this to take effect. The final complete anesthesia is obtained by instilling 1 to 1.5 cc. of 10 per cent cocaine into each side of the tracheobronchial tree with a laryngeal syringe under direct vision. The patient leans first to the right side and then to the left side to insure equal distribution of the solution. It is important that the cocaine solution be instilled drop by drop.

The administration of an antihistaminic prior to the anesthesia to prevent reaction probably would be of little value since this is not an allergic reaction. A tray containing phenobarbital sodium and thiopental sodium should be kept within easy reach for the treatment of severe reactions, which may occur in spite of all precautions. Oxygen and a means of prompt establishment of the airway are essential. As a rule, with the correct amounts of solution in the percentages stated, close observation and evaluation of the anesthesia as it progresses will protect the patient from any severe reaction.

LIGHTHEADEDNESS IN THE FORENOON

To the Editor:—**In the past year or two I have had numerous patients whose chief complaint is lightheadedness, especially in the forenoon. The patient states that at times he feels as if he would "explode" and that he is nervous out of proportion to circumstances, has attacks of cardiac palpitation and weakness of extremities. Sleep is rather poor, and the patient has frequent backaches and pains that radiate to one arm or the other. The patient tolerates all foods; elimination is normal, and there is no genitourinary disorder. The results of physical examination are negative except for slight increase in deep reflex activity. The results of the Wassermann test, blood cell counts, urinalysis, sedimentation test, prostatic smear and agglutination for tularemia and Proteus X19, electrocardiogram, and examinations of the chest and gastrointestinal tract are all within normal limits. A few of the patients have a slight boggy prostate gland with some increased sensitivity of the verumontanum. Various medications, such as treatment with vitamins, antispasmodics, bromides and barbiturates, prove to be of no benefit.**

M.D., Missouri.

ANSWER.—Attacks of lightheadedness, nervousness out of proportion to circumstances, cardiac palpitation, feeling of weakness in the extremities, wakeful slumber, backaches and pains that radiate into the arms, with normal results of physical and laboratory examinations, suggest a psychoneurotic condition. An anxiety neurosis seems to be the most likely diagnosis. However, such a diagnosis should not be made by exclusion. A careful history of the personality growth and development in the individual case is necessary to establish it. Difficulty in bearing responsibility with reasonable comfort, because of poor emotional preparation, is the most outstanding psychologic characteristic and is evidenced by a physical state of tension, which seems to the patient to reach a breaking point, and other symptoms such as the ones which you have stated. It is not always easy to elicit and evaluate the factors which are of chief importance as the patient is ordinarily unaware of them. Generally psychiatric consultation will be required if the pertinent information is to be elicited and evaluated.

ORAL AND RECTAL TEMPERATURES

To the Editor:—**A 31 year old single white woman presents symptoms referable to most of the body systems and consistently has an oral temperature ranging from a few tenths of a degree to 1.5 degree (F.) above normal with simultaneous rectal temperatures which are the same as or lower than the oral temperature. A roentgenogram of the chest, blood cell count, urinalysis and agglutination tests for typhoid, paratyphoid and brucellosis show no abnormalities. The sedimentation rate is consistently elevated to about 20 mm. per hour. Cystoscopic and urographic studies revealed no abnormalities. The diagnosis given in neurologic and psychiatric consultations is psychogenic headaches and personality immaturity with anxiety and latent hostility. Is essential oral hyperthermia a recognized entity? Is this essentially different from neurotic fever?**

M.D., New York.

ANSWER.—Two explanations are suggested by this history. One is impairment of anal circulation, so that blood does not circulate freely in that area. This could be due to tissue changes or to vasoconstriction. The second is congestion of oral structures from some cause not apparent in the history, so that a disproportionate amount of blood is delivered to those tissues, thus raising the temperature locally. Careful examination for rectal tissue changes is suggested.

POLYCYTHEMIA VERA

To the Editor:—**Can you mention the modern drugs and dosage used in the treatment of polycythemia rubra vera? What is the present status of venesection and irradiation?**

Herman Frack, M.D., Oak Park, Ill.

ANSWER.—The most recent drug used in the treatment of polycythemia vera is nitrogen mustard (methyl-bis [beta chloroethyl] amine hydrochloride). This is administered intravenously, 0.1 mg. per kilogram of body weight daily on four consecutive days in 10 cc. isotonic sodium chloride solution or 0.2 mg. per kilogram of body weight on two consecutive days.

Another medicament in the treatment of polycythemia vera is acetyl phenylhydrazine in 0.1 Gm. capsules. In most cases 1 capsule is given daily or three times a week until the blood cell count begins to fall, and then a maintenance dose is established to try to keep the red blood cell count between 5 and 6 million. Some patients may do well with 0.1 Gm. twice a week or, in some cases, once a week. The effect is cumulative, and abrupt falls in red blood cell counts may occur. Toxic manifestations are not infrequent.

Fowler's solution (potassium arsenite solution) is also of value. An effective method of therapy is 0.2 cc. given three times daily, with or after meals, in water or fruit juice, increasing 0.06 cc. a day (not a dose) until the patient is receiving 0.6 cc. three times a day. Some patients require a higher dosage. If anorexia occurs treatment is stopped for two days, and then treatment with two thirds or three quarters of the anorexia-producing dose is resumed, and this dose is maintained.

Venesection and irradiation (spot, spray or with radiophosphorus, P^{32}), with or without low iron diet, are effective methods of treating polycythemia vera. There is a difference of opinion as to whether any one of these methods is superior to the others. Physicians should use the method with which they have had the most experience and which is convenient for the patient.

Recently there has been considerable interest in P^{32}, and there have been several reports on its efficacy. However, this product is not available to most practitioners at present. Spray irradiation also is advocated enthusiastically. Good results have been obtained with all the aforementioned methods. Of course, there are some patients who do not respond to a particular procedure, and therefore a physician treating polycythemia vera should be ready to change his therapeutic agent. Fortunately this is not difficult, because so many good methods are available for the treatment of polycythemia vera.

ALUMINUM IN BAKING POWDERS

To the Editor:—**I am interested in the effects of ingestion of aluminum in baking powders and in antacid powders and tablets (amount absorbed and effects on human beings over long periods of time).**

Lloyd F. Smith, M.D., Monrovia, Calif.

ANSWER.—There is practically no absorption of aluminum when its compounds are administered orally. Virtually the entire amount is recovered from the feces and almost none from the urine. The small normal aluminum content of the organs is not increased significantly even when the administration is continued over long periods (Eveleth, D. F., and Myers, V. C.: Studies of Aluminum, *J. Biol. Chem.* **113**:467, 1936).

The harmlessness of aluminum compounds in oral administration, even when prolonged, has been established by animal experiments and by clinical experience (McCollum, E. V.; Rask, O. S., and Becker, J. E.: La toxicité des composés d'aluminum dans l'alimentation, *Bull. Soc. scient. d'hyg. aliment.* **17**:65, 1929; Hove, E.; Elvehjem, C. A., and Hart, E. B.: Aluminum in Nutrition of the Rat, *Am. J. Physiol.* **123**:640, 1938). In view of the harmlessness of aluminum, the question of the ingestion of aluminum from cooking vessels loses practical significance as does the question of the use of alum baking powder.

ANTITOXIN NEURITIS

To the Editor:—**Can neuritis develop as late as one month after the injection of tetanus antitoxin? I would appreciate a word about the prognosis and treatment.**

A. A. Skemp, M.D., La Crosse, Wis.

ANSWER.—It would be most unusual for antitoxin neuritis to develop as late as one month after the injection of the tetanus antitoxin. Most of the cases reported have come on within ten days, corresponding to about the period of the height of the serum sickness or just following it. One patient reported by Bennett (J. A. M. A. **112**:590 [Feb. 18] 1939) had his first symptoms about eighteen days after the first injection, but none had symptoms as long as one month later. The prognosis and treatment was outlined in THE JOURNAL Feb. 19, 1949 (**139**:553).

DESENSITIZATION TO INSULIN

To the Editor:—A patient, 51 years of age, has had diabetes mellitus for six years. Treatment was begun with crystalline insulin, but induration, itching and tenderness developed at the site of injections on the thighs. Eventually the patient had difficulty in walking because of pain in the leg. Protamine zinc insulin produced similar results, and the patient discontinued the use of insulin. Since then he has been on a diet of his own choosing. After fasting his blood sugar was 183 mg.; there was sugar (4 plus) in the urine; tests for acetone elicited negative reactions. I attempted to desensitize the patient to insulin and began by using 0.001 unit increasing the dose every six hours during the next three days until the patient was receiving 2 units of protamine zinc insulin. As the dose was increased, a local reaction began to appear; it grew worse with each injection. The patient requested that the procedure be discontinued. Should other types of insulin be used, or should the period of desensitization be extended over a greater period of time?

Roderick J. Carruthers, M.D., McGraw, N. Y.

ANSWER.—Allergy to insulin, common among diabetic patients, is observed particularly when treatment is begun and when the use of insulin is resumed after several weeks or months of discontinuance. Fortunately, most allergic responses are local; generalized urticaria and angioneurotic edema are not encountered commonly. Desensitization in this patient might be attempted with crystalline insulin (solution of zinc insulin crystals); the initial dose is the one which can be tolerated without evidence of allergic response. It might be 0.001 unit subcutaneously. It then is increased every four or six hours. Night injections can be omitted for convenience. At first the dose may be doubled with each successive administration. If an allergic response occurs the next lower dose is used. This is increased later as feasible. Throughout the desensitization, which may require several days to a few weeks, an antihistaminic agent may be administered four times a day.

When the patient can receive effective doses of crystalline insulin, this type may be continued. However, if desirable, desensitization with protamine zinc insulin may be attempted as previously outlined.

URTICARIAL DERMATOSIS

To the Editor:—A 36 year old woman has episodes about every other day of intracutaneous lumps which resemble those seen in food idiosyncrasies. During the hours of onset there is sharp pain. The lumps remain painful during the period of swelling and then disappear completely. The lumps have appeared simultaneously on the trunk and extremities and also on the face and head. They are not prevented or relieved by antihistamine drugs of any kind, regardless of the dosage. The patient has been placed on restricted diets without relief. Blood agglutinations were negative for tularemia, undulant fever, parathyroid A and typhus; she did have a 1:40 typhoid reaction and a 1:80 paratyphoid B reaction on one occasion, but this has not been consistent. The Wassermann reaction was negative, and she has not had other diseases except a large ovarian cyst, which was removed in 1941. The operation was followed by unilateral lymphangitis, from which she recovered after a month without complications or residual effects. Complete physical examination showed no abnormalities. The blood and urine are normal now. She has had the tertian form of malaria, which was recurrent on two occasions, and has had symptoms of malaria on one or two other occasions, but the blood smears have been negative repeatedly during the last year. She is an ardent fisherwoman, going out in all kinds of weather. The intracutaneous lesions seem to occur just as readily when she stays at home. She has been unable to associate them with any activity, surrounding or contact.

Karlton H. Kemp, M.D., Texarkana, Ark.-Texas.

ANSWER.—This is most likely a type of urticarial dermatosis with pain as one of the unusual features. The usual causative factors for urticaria should be investigated. If the restricted diets have been systematic, food as a causative factor may be eliminated. The question of possible allergy to drugs should be thoroughly considered. If allergy to drugs is not disclosed, possible foci of infection should be investigated. There is also a possibility of urticarial lesions being caused by physical stimuli, such as cold, heat or light. Psychogenic factors should also be considered. There are also occasions in which such manifestations are suspected to arise as a result of intrinsic allergy, such as parasites (blood, intestinal) or endocrine or still lesser known sources.

ULTRAVIOLET IRRADIATION OF MUCOUS MEMBRANES

To the Editor:—I have been trying to find information concerning the use of ultraviolet irradiation applied topically, being mainly interested in its use in body cavities such as the oral cavity or the ear canal. Any data will be appreciated.

R. J. Kent, M D., Savannah, N. Y.

ANSWER.—When the mucous membranes are treated by ultraviolet irradiation the erythema dose is considered to be about three quarters of the skin erythema dose. Water on the membranes can absorb some ultraviolet rays, so the surface should be kept dry. For details see the report by Peck and Luck (*Dental Cosmos* **72**: 1015 [Oct.] 1930).

RELIEF OF ASTHMA DURING PREGNANCY

To the Editor:—I have an asthmatic patient who states that during the nine month periods of her last two pregnancies, she has been completely free of any wheezing or other allergic reactions. Have you any explanation for this phenomenon?

F. L. Carroll, M.D., Oswego, N. Y.

ANSWER.—Subsidence or amelioration of allergic symptoms during pregnancy is a common observation. There are several possible explanations. The particular allergy in question, or perhaps many instances of allergic manifestations, may be produced directly by some hormonic influence and, as a corollary, may be relieved by other hormone effects. Various effects on the autonomic and central nervous system by cyclic hormone changes may also explain the result seen in such conditions as phases of the menstrual cycle, puberty, menopause and pregnancy. The observation may possibly be explained also on an increased histaminolytic activity of the blood of pregnant women as described by Swanberg (*Acta physiol. Scandinav.* **16**: 83, 1948). Possibly one type or another of immunologic or other biochemical alteration may be the explanation. At present a definitely established basis for this phenomenon is not known nor is such known for similar relief of allergic symptoms occurring during the course of acute infections and in some other physiologic alterations.

DEATH DURING INSUFFLATION OF EUSTACHIAN TUBES

To the Editor:—An otologist called me to see a 44 year old comatose woman who had suddenly collapsed during insufflation of her eustachian tubes. He had done this to her several times before, over a period of several years, without mishap. On each occasion he applied cocaine to the pharyngeal orifice of the tube. When I saw the patient, she was dying. A spinal puncture had been done, and the fluid was said to be normal (including pressure). The respirations were stertorous. The patient was moderately cyanotic. The pulse was rapid and feeble and the blood pressure unobtainable. The eyes oscillated slowly from side to side. The pupils slowly dilated and constricted. There was no edema of the optic disk. The skeletal muscles of the arms and legs were rigid, though the fingers were flaccid. There was no Hoffman sign; the Babinski sign was positive bilaterally. The deep reflexes were hyperactive. There were no abdominal reflexes. The patient died shortly after I saw her. Autopsy was not done. I felt that she had suffered a massive cerebral vascular accident. The otologist wondered about the possibility of air embolization. Please comment on the possible etiologic relationship of the cocaine, the air under pressure and the ensuing coma, paralysis and death.

Arthur M. Knight Jr., M.D., Waycross, Ga.

ANSWER.—Sudden death from air embolism has occurred in a number of recorded instances following irrigation of the maxillary sinus when air was forced into the sinus through an irrigating cannula. Postmortem examination of some of these cases revealed air under pressure in the heart and larger vessels. It is conceivable that air embolism might occur following inflation of the eustachian tubes, particularly if a compressed air nozzle is applied to an eustachian catheter rather than a Politzer bag. The fact that this patient had had similar inflations on previous occasions without incidence would seem to preclude a cocaine reaction.

EXCESSIVE PERSPIRATION

To the Editor:—A young healthy man complains of excessive axillary and other sweating that disturbs him greatly. He has used proprietary remedies locally without success. Can anything be done for him?

M.D., New York.

ANSWER.—Localized hyperhidrosis of the axillas, palms and soles, if severe and unresponsive to topical measures, may sometimes respond to treatment with filtered roentgen rays. The dosage necessary to effect a successful result, however, is near to that of a dangerous dose, so that the treatments must be administered carefully by one skilled in the technic. Many observers feel that the treatment should be reserved for those cases in which the sweating constitutes a serious social or economic problem, for even successful results are described as only "satisfactory."

OCCUPATIONAL OLIGOSPERMIA

To the Editor:—This communication is in reference to the query entitled "Occupational Oligospermia" appearing in The Journal, Aug. 13, 1949, page 1249. The reply discussed at some length the occupational hazard with respect to the chemicals involved but completely overlooked the significant factor in my opinion, to wit, the occupation of flying. An article appeared recently in the *Journal of Urology* in which it was noted that the incidence of sterility was much higher in aviators than in the general population. In my own practice, which is located close to the large metropolitan airfields, I have found an unusually high incidence of sterility in commercial flyers and a concomitant low sperm count. I have no explanation other than the thought that the testicles may be affected by the high gravitational pressures to which flyers are continually subjected.

Ralph U. Whipple, M.D., Manhasset, N. Y.